

OPNAVINST 4790.2H INTERIM CH-1

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ZNR UUUUU
R 020432Z OCT 03
FM CNO WASHINGTON DC//N781//
TO COMNAVAIRFOR SAN DIEGO CA
COMLANTFLT NORFOLK VA
COMPACFLT PEARL HARBOR HI
COMUSNAVEUR LONDON UK
CMC WASHINGTON DC
COMNAVAIRSYSCOM PATUXENT RIVER MD//1.5/1.6/2.0/2.1/2.2/
2.3/2.4/2.5/3.0/3.1/3.2/3.3/3.4/3.5/3.9/3.6/4.0/
4.1/4.2/4.3/4.4/4.5/4.6/4.10/4.11/5.1/5.4/5.5/6.0/
6.0C/6.0D/6.0E/6.0F/7.0/8.0//
COMMARFORLANT
COMMARFORPAC
CNET PENSACOLA FL
COMNAVAIRPAC SAN DIEGO CA//N422//
COMNAVAIRLANT NORFOLK VA//N422//
COMNAVSUPSYSCOM MECHANICSBURG PA
COMSPAWARESYSCOM SAN DIEGO CA
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CNATRA CORPUS CHRISTI TX
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NAVAIRWARCENWPNDIV PT MUGU CA
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NATEC SAN DIEGO CA
NAVAVSCOLSCOM PENSACOLA FL
SPAWARESYSCEN NORFOLK VA
NAVICP PHILADELPHIA PA
PEOASWASM PATUXENT RIVER MD//273/275/276/290/299//
PEOTACAIR PATUXENT RIVER MD//241/242/259/265/268/272//
PEOSTRKWPNSUAVN PATUXENT RIVER MD
COMFLTFORCOM NORFOLK VA
INFO CNO WASHINGTON DC//N00T/N43/N781//
BT
UNCLAS //N04790//
MSGID/GENADMIN/N781C3//
SUBJ/INTERIM CHANGE 1 TO THE NAVAL AVIATION MAINTENANCE PROGRAM,
/OPNAVINST 4790.2H//
REF/A/DOC/OPNAV/01JUN2001//
AMPN/REF A IS OPNAVINST 4790.2H, THE NAVAL AVIATION MAINTENANCE
PROGRAM//
POC/ELLEN MOORE/CDR/OPNAV N781C3/-/TEL:DSN:664-7704
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RMKS/1. THIS INTERIM CHANGE TO REF A INCORPORATES NAVAL TACTICAL
COMMAND SUPPORT SYSTEM (NTCSS) OPTIMIZED OMA NALCOMIS AND INTEGRATED
MAINTENANCE CONCEPT/PLAN (IMC/P) POLICIES INTO OPNAVINST 4790.2H.
2. IMPLEMENTATION. UNLESS OTHERWISE DIRECTED, THIS INTERIM CHANGE
BECOMES EFFECTIVE 1 NOV 2003 AND IS TO BE INCORPORATED ON THAT DATE.
3. ACTION.
A. FOR PAPER COPIES, MAKE THE FOLLOWING PEN AND INK CHANGES TO THE
BASIC INSTRUCTION:
1. PARAGRAPH 6.K. (PAGE 3): REPLACE SECOND SENTENCE WITH: THE
3M DATA COLLECTION SYSTEM WAS DEVELOPED TO MEASURE AIRCRAFT MATERIAL
CONDITIONS OF READINESS NOT LOCAL UNIT READINESS OR EFFECTIVENESS.
STATUS OF RESOURCES AND TRAINING SYSTEM (SORTS) MEASURES A UNIT'S
READINESS AS THE ABILITY TO PERFORM THE WARTIME FUNCTIONS FOR WHICH
THEY ARE DESIGNED OR ORGANIZED, INCLUDING THE ABILITY TO DEPLOY AND
EMPLOY WITHOUT UNACCEPTABLE DELAYS.

OPNAVINST 4790.2H INTERIM CH-1

2. PARAGRAPH 8.B.(2) (PAGE 4): FIRST SENTENCE INSERT, AT THE BEGINNING OF THE SENTENCE, COMMANDER FLEET FORCES COMMAND (N433),. SECOND SENTENCE AFTER IN ADDITION THE INSERT CHIEF OF NAVAL OPERATIONS DIRECTOR, NAVAL EDUCATION AND TRAINING (N00T),

3. PARAGRAPH 8.C.(2) (PAGE 4): SECOND SENTENCE INSERT, AT THE BEGINNING OF THE SENTENCE, CHIEF OF NAVAL OPERATIONS DIRECTOR, FLEET READINESS AND LOGISTICS (N433),

B. FOR ELECTRONIC MEDIA, INTERIM CHANGE 1 SHALL BE ACCESSED/ PRINTED VIA THE OPNAVINST 4790.2H WEB SITE AT [HTTPS://LOGISTICS.NAVAIR.NAVY.MIL/4790/](https://logistics.navair.navy.mil/4790/), AVAILABLE FOR DOWNLOAD 15 OCT 03. THE PRINTABLE VERSION OF INTERIM CHANGE 1 IS AVAILABLE FROM THE INTERIM CHANGE 1 HYPERLINK. A SELF-EXTRACTING PDF FILE (NAMP.ZIP) IS AVAILABLE FOR DOWNLOAD FROM THE PDF DOWNLOAD HYPERLINK. THE PDF FILES INCLUDE OPNAVINST 4790.2H FILES, INTERIM CHANGE 1 FILES, AND A SEARCH FUNCTION. THESE FILES MAY BE DOWNLOADED TO REPLACE EXISTING OPNAVINST 4790.2H FILES ON COMPUTERS AND SERVERS. AFTER SAVING AND EXTRACTING NAMP.ZIP, OPEN NAMP FOLDER AND ACCESS THE NAMP BY OPENING THE CONTENTS.PDF FILE. RECOMMEND CREATING A SHORTCUT TO CONTENTS.PDF.

1. INTERIM CHANGE ONE IS DIVIDED INTO 4 SECTIONS, EACH PRECEDED WITH A COPY OF THIS INTERIM CHANGE MESSAGE:

SECTION A - VOLUME I

SECTION B - VOLUME II

SECTION C - VOLUME III

SECTION D - VOLUME V

2. ELLIPSES AND UNDERLINES ARE USED THROUGHOUT THE INTERIM CHANGE TEXT. ELLIPSES ARE A SERIES OF THREE ASTERISKS USED TO INDICATE THE OMISSION OF WORDS OR SENTENCES. OMISSION OF WORDS OR SENTENCES DOES NOT INDICATE DELETION BUT THAT THE TEXT IS ONLY OMITTED FOR THE EASE OF THE READER. UNDERLINED TEXT INDICATES AN INSERTION OF NEW TEXT OR THE MODIFICATION OF EXISTING TEXT.

3. OPNAVINST 4790.2H INCLUDES VERTICAL LINES IN THE RIGHT HAND MARGIN TO INDICATE TEXT AFFECTED BY INTERIM CHANGE 1 AND HYPERLINKS IN THE LEFT HAND MARGIN FOR DIRECT ACCESS TO RELATED TEXT WITHIN INTERIM CHANGE 1.

C. INCORPORATION OF INTERIM CHANGE 1 FOR PAPER COPIES OF OPNAVINST 4790.2H.

1. PRINT EACH SECTION AND INSERT DIRECTLY BEHIND THE TITLE PAGE OF EACH APPLICABLE VOLUME.

2. ANNOTATE THE RECORD OF CHANGES PAGE ACCORDINGLY.

3. MARK THE SPECIFIC CHANGE AREA IN THE MARGIN OF EACH PAGE AFFECTED WITH A VERTICAL LINE AND INCLUDE THE INTERIM CHANGE NUMBER.

D. INCORPORATION OF INTERIM CHANGE 1 FOR EXISTING OPNAVINST 4790.2H CD-ROMS SHALL BE HANDLED IAW WITH OPNAVINST 4790.2H, CH 1 PARA 1.2D.

4. CONTACT YOUR COGNIZANT WING/TYCOM/ACC OR NAVAIR 3.3 IF DOWNLOAD OR WEB CONNECTIVITY PROBLEMS ARE ENCOUNTERED.

5. THIS INTERIM CHANGE WILL BE INCORPORATED IN THE NEXT REVISION TO REF A.

6. ACTION ADDRESSEES DISSEMINATE TO ALL NAMP USER ACTIVITIES.//

BT

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INTERIM CH-1

C. Volume III

(1) Page i (Volume III Table of Contents)

After Chapter 9, ADD reference to NEW [NTCSS](#) Optimized NALCOMIS chapter: “[Chapter 10 - NTCSS Optimized NALCOMIS Data Collection System](#)”.

(2) Page ii (Volume III Table of Contents)

After Appendix T, ADD reference to NEW Appendix: “[Appendix U - Type Work Order Codes](#).”

(3) Page 3-i (Chapter 3 Table of Contents)

Following reference to Paragraph 3.6, ADD NEW [paragraphs 3.7 and 3.8](#) with subparagraphs:

3.7	Aviation Maintenance Information Summary Reports and Data Extract Products
3.7.1	Consolidated Performance Metrics (MAINT-1 Report)
3.7.2	Aircraft Readiness Degradation and Utilization Summary (MAINT-2 Report)
3.7.3	Subsystem Capability Impact Reporting by WUC/UNS (MAINT-3 Report)
3.7.4	Detailed Mission and Maintenance Data by Aircraft (MAINT-4 Report)
3.7.5	Maintenance Manhours (MAINT-5 Report)
3.7.6	Detailed Data Extract (MAINT-6 Report)
3.8	Flight Reports
3.8.1	Aircrew Flight
3.8.2	Aircraft Flight
3.8.3	Individual Master Roster
3.8.4	Aircraft Flight Summary Report
3.8.5	Aircraft Landing Code and Mission Number (Hours) Summary
3.8.6	Aircrew Flight Summary by SSN and Aircrew Flight Summary by Assy Cd

(4) Page 3-iv (Chapter 3 List of Illustrations)

Following reference to Figure 3-44, ADD figures [3-45 through 3-50](#):

3-45	Consolidated Performance Metrics (MAINT-1 Report) (Sample)	Figure 3-45
3-46	Aircraft Readiness Degradation and Utilization Summary (MAINT-2 Report) (Sample)	Figure 3-46
3-47	Subsystem Capability Impact Reporting by WUC/UNS (MAINT-3 Report) (Sample)	Figure 3-47
3-48	Detail Mission and Maintenance Data by Aircraft (MAINT-4 Report) (Sample)	Figure 3-48
3-49	Maintenance Manhours (MAINT-5 Report) (Sample)	Figure 3-49
3-50	Detailed Data Extract (MAINT-6 Report) (Sample)	Figure 3-50

(5) Page 3-26

Following subparagraph 3.6g, ADD new paragraphs (3.7 with subparagraphs 3.7.1 through 3.7.6 and 3.8 with subparagraphs 3.8.1 through 3.8.6):

[3.7 Aviation Maintenance Information Summary Reports and Data Extract Products](#)

[Aviation summary and data extract products provide a standardized, readily available source of information that users can refer to when gathering statistical naval aviation information. These products show aggregated](#)

and detailed data based on user input parameters, and are prepared from active and completed documents. All reports are prepared from MAFs/WOs and Naval Aircraft Flight Record (OPNAV 3710/4)/flight documents submitted by organizational units. SCIR related reports show the mission capability for an organization's assigned equipment.

NOTE: Local reports from Foundation Tier may not include detachment data or inventory corrections incorporated in up-line reporting.

3.7.1 Consolidated Performance Metrics (MAINT-1 Report)

a. The report (Figure 3-45) provides aviation supervisory personnel with a single source of information from which organizational/equipment capabilities and resource expenditures can be measured. All TRCODEs are candidates for generating this report except TRCODEs 30, 31, 32, or 39 and all TM codes that are equal to F, but are not equal to TRCODE 72. Data to create this report is extracted from MAFs/WOs and Naval Aircraft Flight Record (OPNAV 3710/4)/flight documents submitted during the reporting period.

b. The MAINT-1 report may be used to determine:

- (1) Aircraft available to an organization and its mission.
- (2) Readiness for each T/M/S maintained by an organization, as well as an overall unit assessment.
- (3) Impact of maintenance/supply on equipment mission capability.
- (4) Resources expended in maintaining a particular level of readiness or use of assets.
- (5) The extent of manpower expenditure beyond direct support of aircraft.
- (6) A general indication of where mission aborts occur.
- (7) The effort necessary to prevent and treat corrosion.
- (8) The responsiveness of the aviation supply system.
- (9) Shipboard flight operations.

c. The MAINT-1 report is produced for each Assy Cd when more than one T/M/S is assigned to an organization to provide separation among type aircraft maintained during the reporting period.

d. An overall organizational report is produced to reveal aggregated squadron metrics.

e. Field calculations are accomplished as follows:

(1) TOTAL EIS: Sum total EIS hours for each aircraft maintained during the reporting period. For the purpose of this calculation the count begins on the date and time an aircraft is gained and the count ends at 2400 on the last day of each report or on the date and time an aircraft is transferred/lost.

(2) AVG ACFT: Depicts the average number of aircraft available to a unit, based on total accumulated EIS hours during the selected reporting period.

$$\text{AVG ACFT} = \frac{\text{TOTAL EIS HRS}}{\text{\# DAYS IN MONTH X 24}}$$

NOTE: The following readiness percentages are computed using accumulated hours during the desired reporting period.

(3) MC%: Reflects the percentage of aircraft available to a unit, based on total accumulated EIS hours during the selected reporting period which are capable of performing at least one, but not all missions. Computation of this data element is as follows:

$$\text{MC\%} = \frac{\text{TOTAL EIS HRS} - (\text{NMCS} + \text{NMCM}) \text{ HRS}}{\text{TOTAL EIS HRS}} \times 100$$

(4) FMC%: Reflects the percentage of all aircraft assigned to a unit which were capable of performing all missions during the selected reporting period. Computation of this data element is as follows:

$$\text{FMC\%} = \frac{\text{TOTAL EIS HRS} - (\text{NMCS} + \text{NMCM} + \text{PMC}) \text{ HRS}}{\text{TOTAL EIS HRS}} \times 100$$

(5) NMCM%, NMCS%, PMCM%, PMCS%: Reflects aircraft system degradation, as a percentage of time impacted in any of the listed categories, during the selected reporting period. By using substitution for the selected category, computation of this data element is as follows:

$$\text{SELECTED CATEGORY\%} = \frac{\text{TOTAL (SELECTED CATEGORY) HRS}}{\text{TOTAL EIS HRS}} \times 100$$

(6) FLTHRS: Displays total number of flight hours accumulated from Naval Aircraft Flight Record (OPNAV 3710/4)/flight documents submitted during the selected reporting period.

(7) FLTS: Displays total number of flights accumulated from Naval Aircraft Flight Record (OPNAV 3710/4)/flight documents submitted during the selected reporting period.

(8) AVG UTIL: Reports the average number of flight hours expended, per aircraft, during the selected reporting period. Computation of this data element is as follows:

$$\text{AVG UTIL} = \frac{\text{TOTAL FLTHRS}}{\text{AVG ACFT}}$$

(9) AVG FLT DURATION: Computed by dividing total flight hours by total flights.

(10) TOTAL CANN IP and TOTAL CANN MHRS: Displays the accumulated cannibalization items processed and man-hours during the selected reporting period. Selection criteria for this data element is based on maintenance level one MAFs/WOs containing the following:

- (a) Assy Cd beginning with A.
- (b) TR Code 18 or 19.
- (c) AT Code T.
- (d) MAL Codes 812 through 820.
- (e) TM Code B.

(11) CANNNS/100 FLTHRS: Measures the number of cannibalization actions necessary to support 100 flight-hours. This use of 100 flight hours, as a standard divisor, is to normalize comparisons and maintain statistical consistency. Computation of this data element is as follows:

$$\text{CANNNS / 100 FLTHRS} = \frac{\text{TOTAL CANN ITEMS}}{(\text{TOTAL FLTHRS} / 100)}$$

(12) A-799 IP and A-799 MHRS: Displays accumulated no-defect items processed and man-hours during the selected reporting period. Selection criteria for this data element is based on maintenance level one MAFs/WOs containing the following:

- (a) Assy Cd beginning with A.
- (b) AT Code A.
- (c) MAL Code 799.

(13) TOTAL W/D 'Y'. Displays accumulated number of parts, components, or assemblies received or withdrawn from supply and found to be discrepant upon installation.

(14) TOTAL ACFT DMMH: Reflects accumulated man-hours directly attributed to maintenance of aircraft during the selected reporting period. In particular, those maintenance level one MAFs/WOs with an Assy Cd beginning with A.

(15) ACFT DMMH/FLTHR: Computed by dividing Total ACFT DMMH by Total FLTHRS.

(16) TOT MAINT MHRS: Total man-hours attributed to the maintenance of the aircraft.

(17) CORR Prevention HRS: Reflects the accumulated man-hours expended in the prevention of aircraft corrosion during the selected reporting period. Selection for this data element is based on maintenance level one MAFs/WOs containing the following:

- (a) Assy Cd beginning with A.
- (b) WUC beginning with 04.
- (c) AT Code 0.
- (d) MAL Code 000.

(18) CORR Treatment HRS: Reflects the accumulated man-hours expended in the treatment of aircraft corrosion during the selected reporting period. Selection for this data element is based on maintenance level one MAFs/WOs containing the following:

- (a) Assy Cd beginning with A.
- (b) WUC not beginning with 04.
- (c) AT Code Z.
- (d) MAL Code 170.

(19) FLTHRS-SHIP: Displays total number of shipboard flight hours accumulated from Naval Aircraft Flight Record (OPNAV 3710/4)/flight documents submitted during the selected reporting period. Selection for this data element is based on Naval Aircraft Flight Record (OPNAV 3710/4)/flight documents with operations Code of A, B, or C.

(20) FLTS - SHIP: Displays total number of shipboard flights accumulated from Naval Aircraft Flight Record (OPNAV 3710/4)/flight documents submitted during the selected reporting period. Selection for this data element is based on Naval Aircraft Flight Record (OPNAV 3710/4)/flight documents with an operations Code of A, B, or C.

(21) BEFORE FLT ABORTS I/P: Reflects the number of flights that were aborted before flight during the selected reporting period. Selections for this data element is based on maintenance level one MAFs/[WOs](#) having WD Code A.

(22) IN-FLT ABORTS I/P: Reflects the number of flights that were aborted in-flight during the selected reporting period. Selections for this data element is based on maintenance level one MAFs/[WOs](#) having WD Code C.

3.7.2 Aircraft Readiness Degradation and Utilization Summary (MAINT-2 Report)

a. The report ([Figure 3-46](#)) shows, by aircraft BUNO, the total number of discrepancy hours limiting the equipment from performing its mission or function during the reporting period. This report also denotes equipment utilization. All TRCODEs are candidates for generating this report except TRCODEs 30, 31, 32, or 39, and all TM codes that are equal to F but are not equal to TRCODE 72. The report is used to determine the impact of maintenance/supply on the mission capability of the equipment. EIS hours, flight hours, and number of flights are also portrayed. Total SCIR hours are the accumulation of all SCIR related gripe life hours extracted from the MAFs/[WOs](#) by aircraft BUNO.

b. The MAINT-2 is sorted as follows:

(1) ORG code.

(2) [Assy Cd](#).

(3) Aircraft BUNO.

c. All lines are a summation of aircraft BUNO within [Assy Cd](#) and ORG.

d. An [Assy Cd](#) TOTAL is entered upon a change in Assy Cd.

e. An ORG TOTAL is entered upon a change in ORG code.

3.7.3 Subsystem Capability Impact Reporting by WUC/UNS (MAINT-3 Report)

a. The report ([Figure 3-47](#)) displays SCIR hours by mission category and AWM hours by reason codes, summarized for a given EOC code and associated WUC during a reporting period. The MAINT-3 is prepared from MAFs/[WOs](#) that have an EOC code. All TRCODEs are considered candidates for generating this report except TRCODEs 00, 02, 03, 30, 31, 32, or 39 and all TM codes that are equal to F but are not equal to TRCODE 72.

b. The MAINT-3 is sorted as follows:

(1) ORG code (major sort).

(2) Assy Cd.

(3) EOC code.

(4) WUC/UNS.

c. All lines represent summations of maintenance actions by WUC to a specific EOC code within an Assy Cd and ORG code. It will show total SCIR hours and distribution of those hours by the degradation PMCM, PMCS, NMCMS, NMCMU, NMCS, and total AWM hours. A decimal is assumed on all entries on detail lines.

d. A CAT TOTAL line is printed upon change of mission capability category (PMC and NMC). Total SCIR hours and AWM hours (as applicable) are depicted as 100.0 percent for mission capability category (PMCM, PMCS, NMCMS, NMCMU, NMCS and Assy Cd). Total SCIR hours, PMC and NMC, hours are a summation of the SCIR category totals. Total AWM hours and individual reason code totals are a summation of the SCIR category totals. Percentages are based on total SCIR hours and AWM hours for the individual Assy Cds. A decimal is assumed on all entries except percentages.

e. An ORG TOTAL is printed upon change of ORG code. Total SCIR, PMC, and NMC hours are a summation of the Assy Cd TOTAL. Total AWM hours and individual reason code totals are a summation of (Assy Cd TOTAL) totals. Percentages are based on total SCIR hours and AWM hours for Assy Cd within the ORG. A decimal is assumed on all entries except percentages.

3.7.4 Detailed Mission and Maintenance Data by Aircraft (MAINT-4 Report)

a. The report (Figure 3-48) shows mission capability and maintenance data for each MAF/WO submitted for a given EOC code and associated WUC by aircraft BUNO within Assy Cd and ORG code. All TRCODEs are considered candidates for generating this report except TRCODEs 00, 02, 03, 30, 31, 32, or 39 and all TM codes that are equal to F but are not equal to TRCODE 72.

b. The MAINT-4 is sorted as follows:

(1) ORG code (major sort).

(2) Assy Cd.

(3) Aircraft BUNO.

(4) EOC code.

(5) WUC/UNS.

(6) MCN.

c. All lines show total SCIR hours and distribution of hours by type degradation (PMCM, PMCS, NMCMS, NMCMU, NMCS), and JCN, WC, TR, WD, TM, AT, MAL, IP, MHRS, EMT, and MCN documented on the MAFs/WOs. A decimal is assumed on mission capability data entries.

d. A CAT TOTAL is printed upon change of mission capability category (PMC and NMC). Total SCIR hours are depicted as 100.0 percent for mission capability category (PMCM, PMCS, NMCMS, NMCMU,

NMCS, and aircraft BUNO). Total aircraft BUNO TOTAL SCIR hours are a summation of the CAT TOTAL for PMC and NMC. Percentages are based on total SCIR hours for that aircraft BUNO. A decimal is assumed on mission capability data entries except percentages.

e. An [Assy Cd](#) TOTAL is printed upon change of Assy Cd. A decimal is assumed on mission capability data entries except percentages.

f. An ORG TOTAL is printed upon change of ORG code. A decimal is assumed on mission capability data entries except percentages.

3.7.5 Maintenance Manhour (MAINT-5 Report)

a. The report (Figure 3-49) provides data on DMMH/FLTHR for aircraft assigned to a unit during the selected reporting period. All TRCODEs are candidates for generating this report except TRCODEs 30, 31, 32, or 39, and all TM codes that are equal to F, but are not equal to TRCODE 72. Data to create this report is extracted from MAFs/WOs submitted during the reporting period.

b. The DMMH/FLTHR figure is generally employed as an index of cost, in terms of maintenance, of supporting an hour of aircraft flight (the lower the index, the lower the cost). Following the same line of reasoning, the lower the cost, the more flight hours that can be bought with a given amount of maintenance. It is essential that a lower index not be attained at the expense of omitting required maintenance.

c. The MAINT-5 report may be used to determine:

(1) Which aircraft required a large amount of direct maintenance man-hours, and what type of maintenance was performed.

(2) The maintenance man-hours spent per aircraft as opposed to the number of hours flown.

(3) The ratio of look phase man-hours to fix phase man-hours per type of inspection.

(4) The ratio of unscheduled to scheduled man-hours.

(5) In conjunction with past data, it can be determined which aircraft are continually high man-hour consumers.

d. Typical factors that may cause fluctuations in the maintenance man-hour per flying hour figure are:

(1) A reduction of programmed flying hours will not always be accompanied by an immediate and corresponding drop in maintenance (a high index may result).

(2) Shortening the sortie length can materially reduce the total hours flown while maintenance remains stable (a high index may result).

(3) Unforeseen maintenance, such as airframe or engine modification, can ground the aircraft and at the same time cause increased maintenance (a high index may result).

(4) Decreased maintenance may occur as the result of reduced inspection requirements, improvements in work methods or facilities, etc., while flying hours remain stable (a lower index may result).

(5) An increase in total flying hours will not always necessitate additional maintenance (a lower index may result).

e. All lines are sorted as follows:

(1) ORG code (major sort).

(2) Assy Cd.

(3) Aircraft BUNO.

f. A MAINT-5 report is produced for each Assy Cd when more than one T/M/S is assigned to an organization to provide separation among type aircraft maintained during the reporting period.

g. An overall organizational report is produced to reveal aggregated squadron metrics.

h. Field calculations are accomplished as follows:

(1) UNSCH MAINT: Unscheduled aircraft maintenance man-hours reported on level one MAFs/WOs where the Assy Cd begins with A and TM is equal to B.

(2) PHASE/PDM LOOK: Reflects total man-hours expended in performing look portion of phase, PDM, or IMC/P inspections. Level one MAFs/WOs with a TM Code of G and a WUC beginning with 03 will be selected.

(3) PHASE/PDM FIX: Depicts total man-hours expended in repairing discrepancies that were discovered during look portion of phase, PDM, or IMC/P inspections. Level one MAFs/WOs with a WD Code of M, TM Code of G, and a WUC not beginning with 03 will be selected.

(4) ACPT/XFER INSP: Denotes all man-hours consumed in performing acceptance or transfer inspections. This field contains look and fix man-hours from level one MAFs/WOs, where TM Code equals E.

(5) COND INSP: Displays all man-hours consumed in performing conditional inspections. This field contains combined look and fix man-hours from level one MAFs/WOs, where TM Code equals S.

(6) SPECIAL INSP LOOK: Indicates, by aircraft BUNO, total man-hours expended in performing look portion of special inspections. Level one MAFs/WOs with a W/D Code of 0, TM Code containing D, K, M, or N, and a WUC beginning with 03 or 04 will be selected.

(7) SPECIAL INSP FIX: Shows, by aircraft BUNO, total man-hours expended in repairing discrepancies that were discovered during look portion of special inspections. Level one MAFs/WOs with a TM Code containing D, K, M, or N and a WUC not beginning with 03 or 04 will be selected.

(8) TDC: Indicates, by aircraft BUNO, the total man-hours documented on level one MAFs/WOs where TRCODE is 41 or 47.

(9) TOT MHRS: This field reflects, by aircraft BUNO, the sum of all man-hours from previous fields on this report.

(10) ACFT FLTHRS: This field depicts the total flight hours by, aircraft BUNO, from Naval Aircraft Flight Record (OPNAV 3710/4)/flight documents submitted during the selected reporting period.

(11) DMMH/FLTHR: Computed by dividing TOTAL MHRS by ACFT FLTHRS.

$$\text{DMMH / FLTHR} = \frac{\text{TOTAL MHRS}}{\text{ACFT FLTHRS}}$$

3.7.6 Detailed Data Extract (MAINT-6 Report)

a. The report ([Figure 3-50](#)) provides key detailed data from MAFs/[WOs](#) completed by a unit during the selected reporting period. Aviation managers or supervisors can use this data product to analyze equipment capability, reliability, and maintainability. All maintenance level one documents, for all [Assy Cds](#) assigned to an organization are candidates for generating this extract.

b. This data product is provided in electronic format. It is intended to make available to users the capability to perform queries based on specific criteria established by supervisory and management personnel. Through the use of available third-party software, data analysts will have the tools necessary to provide statistical analysis or data mining services for internal and external inquiries.

c. All lines are sorted as follows:

(1) ORG code (major sort).

(2) [Assy Cd](#).

(3) Aircraft BUNO.

(4) Work Center.

(5) WUC/[UNS](#).

d. The MAINT-6 report may be used to:

(1) Identify troublesome systems or subsystems that require disproportionate maintenance actions or man-hours. (Example: Total man-hours by WUC, [Assy Cd](#), aircraft BUNO, MAL code, etc.)

(2) Determine recurring problems against various systems or subsystems as indicated by a large number of repeat discrepancies. Selection of repeat failure items can be used to establish the cause of the failures, for example, structural design or improper maintenance.

(3) Compare man-hours used in the upkeep of each specific type of equipment to determine the cost in man-hours of maintaining a particular type equipment, system, or subsystem, or of isolating components that might be causing the entire system to consume high man-hours.

(4) Rank maintenance actions by any category. (Example: High man-hour consumers or high failure items, by WUC, [Assy Cd](#), aircraft BUNO, etc.)

(5) Measure the maintenance effort attributable to FOD.

(6) Measure the maintenance effort attributable to the prevention and treatment of corrosion, and determine whether any specific section of an aircraft needs additional attention.

(7) Track removal and replacement of items and the P/Ns of repairable parts/assemblies.

(8) Determine the amount of time and effort expended on maintenance where there is no malfunction or alleged malfunction. Some examples are cannibalization actions, matched set removals, FOM actions, or items removed/installed due to forced removal or scheduled maintenance.

(9) Indicate lack of training or test equipment by number of no defects or CANN actions.

(10) Identify TD actions for a particular WUC, [Assy Cd](#), aircraft BUNO, etc.

(11) Determine the number of abort malfunctions caused by mechanical failures, what caused them, whether these malfunctions were discovered before flight or while in flight, and whether they could have been eliminated by better inspections.

(12) Identify the number of items processed or man-hours expended, as a result of discrepancies discovered during acceptance checks on recently assigned aircraft, and whether it appears that there was an abnormal amount of work required.

(13) Identify the number of malfunctions discovered during functional check flights. (A large number may indicate improper maintenance procedures or poorly trained personnel.)

3.8 Flight Reports

3.8.1 Aircrew Flight

This report reflects the flight activity performed by a specific, multiple or all aircrew within the inclusive dates entered in the Aircrew Flight window. The report is listed by document numbers, then by aircrew and then by the subtotals and totals of flight times in each category.

3.8.2 Aircraft Flight

This report reflects the flight activity data of a specific aircraft or all aircraft with the same [Assy Cd](#). It also summarizes the grand total for all aircraft even if the report is for specific aircraft. The report is listed by [Assy Cd](#) and aircraft BUNO.

3.8.3 Individual Master Roster

This report identifies the total aircrew assigned to an ORG, transferred, staff, and visitor by grade, SSN, SVC, hours flown, and flight qualifications. Each line represents each aircrew assigned, hours flown, and flight qualification status. The IMR will be kept up-to-date through the personnel module to reflect current personnel in a flying status. Whenever a personnel change occurs, the IMR will be automatically updated. The IMR is an up-to-date report that can be displayed or run any time desired.

3.8.4 Aircraft Flight Summary Report

This report summarizes, by BUNO, TMR code/hours with mission name, landings (by landing code), total flight hours and flights, ship flight hours and flights, catapult launches, and training areas/hours performed by each aircraft. It is prepared from data submitted in the Flight Module. This report is double-spaced between BUNOs and each line represents a summarization for each type landing (day/night) by BUNO. BUNO, [Assy Cd](#), and ORG totals are printed upon change of specific titles.

3.8.5 Aircraft Landing Code and Mission Number (Hours) Summary

This report summarizes by BUNO, MSN hours, and landings for all aircraft or selected aircraft at any time for a selected time period.

3.8.6 Aircrew Flight Summary by SSN and Aircrew Flight Summary by Assy Cd

These reports provide the individual Flight Summary data by all aircrew in the activity or selected individual by SSN or by a selected Assy Cd for a selected time frame at any time.

(6) Following figure page 3-44

ADD new figures 3-45 through 3-50:

ORG : KC7	NALCOMIS OMA	DATE : 16 JUL 2003
ORG Name : VAW-78	MAINT - 1 REPORT	TIME : 0714
Assy Cd : AEBC	(CONSOLIDATED PERFORMANCE METRICS)	REQ BY: CIV A DBADMIN
TMS : E-2C	01 JUN 2003 0000 – 30 JUN 2003 2359	PAGE : 1 of 1

NOTE: THIS IS A LOCAL REPORT FROM THE FOUNDATION SERVER. IT MAY NOT INCLUDE DETACHMENT DATA OR INVENTORY CORRECTIONS INCORPORATED IN UPLINE REPORTING.

TOTAL EIS: 2880	PMCS%: 6.17	TOTAL W/D "Y": 15
AVG ASSIGNED ACFT: 4.00	PMCM%: 48.00	TOTAL ACFT DMMH: 1152.5
ASSIGNED MC%: 56.74	FLTHRS: 187.60	ACFT DMMH/FLTHR: 6.14
ASSIGNED FMC%: 2.57	FLTS: 60	
NMCD%: 0	AVG UTIL: 46.90	CORR PREV MHRS: 19.1
AVG ACFT: 4.00	AVG FLT DURATION: 3.13	CORR TREAT MHRS: 29.0
MC%: 56.74	TOTAL CANN I/P: 34	FLTHRS – SHIP: 0
FMC%: 2.57	TOTAL CANN MHRS: 38.7	FLTS – SHIP: 0
NMCS%: 7.22	CANN/100 FLTHRS: 18.12	BEFORE FLT ABORTS I/P: 5
NMCM%: 36.05	A- 799 I/P: 28	IN- FLT ABORTS I/P: 1
	A- 799 MHRS: 32.0	

Figure 3-45 Consolidated Performance Metrics (MAINT-1 Report) (Sample)

ORG : KC7	NALCOMIS OMA	DATE : 16 JUL 2003
ORG Name : VAW-78	MAINT-2 REPORT	TIME : 0716
PUC : 001151	(AIRCRAFT READINESS DEGRADATION AND UTILIZATION SUMMARY)	REQ BY: CIV A DBADMIN
	01 JUN 2003 0000 – 30 JUN 2003 2359	PAGE : 1 of 1

NOTE: THIS IS A LOCAL REPORT FROM THE FOUNDATION SERVER. IT MAY NOT INCLUDE DETACHMENT DATA OR INVENTORY CORRECTIONS INCORPORATED IN UPLINE REPORTING.

Assy Cd	MODEX	BUNO	NMC Scheduled	NMC Unscheduled	NMC Supply	NMCD	PMC Maintenance	PMC Supply	EMC	EIS	EOS	Aircraft Status Code	Total Flight Hours	Total Number Flights	Ship Flight Hours	Operation Number Flights	Total SCIR Hours
AEBC	600	161229	14	346	45	0	291	24	0	720	0	A	31.5	9	0	0	8548
	601	162619	44	159	137	0	253	127	0	720	0	A	46.9	16	0	0	3769
	602	162802	14	108	17	0	504	3	74	720	0	A	78.3	25	0	0	1744
	604	163028	115	239	9	0	334	23	0	720	0	A	30.9	10	0	0	7422
	* TOTALS		187	852	208	0	1382	177	74	2880	0		187.6	60	0	0	21483
	** TOTALS		187	852	208	0	1382	177	74	2880	0		187.6	60	0	0	21483

Figure 3-46 Aircraft Readiness Degradation and Utilization Summary (MAINT-2 Report) (Sample)

OPNAVINST 4790.2H Volume III INTERIM CH-1

ORG : WA6
 ORG Name : VX-20
 Assy Cd : AEBC
 TMS : E-2C

NALCOMIS OMA
MAINT-3 REPORT
(SUBSYSTEM CAPABILITY IMPACT REPORTING BY WUC/UNS)
09 JUN 2003 0000 – 30 JUN 2003 2359

DATE : 09 JUL 2003
 TIME : 0937
 REQ BY: AZ1 R SMITH
 PAGE : 4 of 4

NOTE: THIS IS A LOCAL REPORT FROM THE FOUNDATION SERVER. IT MAY NOT INCLUDE DETACHMENT DATA OR INVENTORY CORRECTIONS INCORPORATED IN UPLINE REPORTING.

EOC	WUC/UNS	Total SCIR Hours	PMC Maint Hours	PMC Supply Hours	NMC Schd Hours	NMC Unschd Hours	NMC Supply Hours	NMCD Hours	M1 Hours	M2 Hours	M3 Hours	M4 Hours	M5 Hours	M6 Hours	M7 Hours	M8 Hours	Total AWM Hours
C	56251	528	528								528						528
C	67X2D00	19	19								18						18
D	6361700	528	528								528						528
D	67X2D00	27	27								25						25
E	726DL00	101	1	100													0
E	726E400	109	9	100							5						5
J	4191260	528	528								528						528
L	631U0	71	70	1							68						68
L	734H500	13	13								11						11
* TOTALS		1924	1723	201	0	0	0	0	0	0	1711	0	0	0	0	0	1711
			89.55%	10.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Z	030 Conditional Insp	10				10					2						2
Z	030000A	392			392						383						383
Z	030000B	52			52						48						48
Z	030000E	340			340						326						326
Z	03A0000	304			304						301						301
Z	12220	5				5					4						4
Z	13G1400	16				15	1				11						11
Z	51E2100	17				14	3				7						7
Z	63610	17				17					16						16
Z	6361300	10				10					8						8
Z	6361700	49				49					28						28
* TOTALS		8076	0	0	1088	5808	1180	0	0	0	6652	0	0	0	0	0	6652
			0.00%	0.00%	13.47%	71.92%	14.61%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
** TOTALS		10000	1723	201	1088	5808	1180	0	0	0	8363	0	0	0	0	0	8363
			17.23%	2.01%	10.88%	58.08%	11.80%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
*** TOTALS		15186	5237	1711	1088	5958	1192	0	0	0	11968	0	0	0	0	0	11968
			34.49%	11.27%	7.16%	39.23%	7.85%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	

Figure 3-47 Subsystem Capability Impact Reporting by WUC/UNS (MAINT-3 Report (Sample))

OPNAVINST 4790.2H Volume III INTERIM CH-1

ORG : KC7
 ORG Name : VAW-78
 Assy Cd : AEBC
 TMS : E-2C
 BUNO : 163028

NALCOMIS OMA MAINT-4 REPORT (DETAIL MISSION AND MAINTENANCE DATA BY AIRCRAFT) 01 JUN 2003 0000 – 30 JUN 2003 2359

DATE : 16 JUL 2003
 TIME : 0718
 REQ BY: CIV A DBADMIN
 PAGE : 13 of 13

NOTE: THIS IS A LOCAL REPORT FROM THE FOUNDATION SERVER. IT MAY NOT INCLUDE DETACHMENT DATA OR INVENTORY CORRECTIONS INCORPORATED IN UPLINE REPORTING.

EOC	WUC/JUNS	Total SCIR Hours	PMC Maint Hours	PMC Supply Hours	NMC Sched Hours	NMC Unsched Hours	NMC Supply Hours	NMCD Hours	JCN	Work Center	TRANS CD	When DISCVD	Type MAINT	Action Taken	MAL CD	Items Prcsd	MHRS	FMT	MCN
C	94192	44	37	7					KC7162181	210	23	B	B	R	374	1	2.3	2.3	OG4VFWN
C	94192	121	118	3					KC7164208	210	23	Y	B	R	374	1	1.5	1.5	OG4VFXT
D	728E0	720	720						KC7061496	210	12	H	B	B	160	1	22.6	22.6	OG4VCZJ
E	65320	4	4						KC7167257	210	11	D	B	C	127	1	0.8	0.4	OG4VG0D
E	65Y2700	37	31	6					KC7157067	210	18	O	B	T	815	1	1.0	1.0	OG4VFS1
E	65Y2700	21	21						KC7159103	210	23	Y	B	R	374	1	1.2	1.2	OG4VFTF
E	726D0	36	7	29					KC7168288	210	12	H	B	B	160	1	3.8	3.8	OG4VG11
L	734H500	3	3						KC7167254	220	11	D	B	C	160	1	1.2	1.2	OG4VGDB
L	734H600	34	34						KC7114485	220	11	O	B	S	800	0	2.0	2.0	OG4VEIS
L	734H600	28	27	1					KC7156036	220	18	O	B	T	815	1	0.5	0.5	OG4VFQG
* TOTALS		4607	4006	601	0	0	0	0											
		86.95% 13.05% 0.00% 0.00% 0.00% 0.00%																	
Z	030	0							KC7161127	210	11	O	S	0	000	1	0.4	0.4	OG4VFUB
Z	030	1				1			KC7163187	120	11	O	S	0	000	1	0.7	0.7	OG4VFWU
Z	030000A	8			8				KC7138307	120	11	O	D	0	000	0	0.6	0.6	OG4VF4F
Z	1111D00	138				102	36		KC7107341	120	12	H	B	B	381	1	3.5	3.5	OG4VFAZ
Z	12146	223				223			KC7128134	110	23	H	B	R	127	1	0.3	0.3	OG4VEV4
Z	14F2300	1				1			KC7161129	220	12	A	B	B	374	1	2.4	1.2	OG4VFUL
Z	22300	181				181			KC7133D01	110	23	M	G	R	190	1	78.3	62.8	OG4VF10
Z	223D0	39				39			KC7148A02	110	11	M	G	C	127	1	2.8	2.8	OG4VF01
Z	223D1B0	72				72			KC7156023	110	23	H	B	R	314	1	20.2	16.7	OG4VFP1
Z	223D1J0	70				70			KC7155011	110	23	H	B	R	900	1	11.2	11.2	OG4VFO0
Z	223D330	43				43			KC7159102	110	12	H	B	B	127	1	12.9	12.9	OG4VFT1
Z	42518	27				27			KC7175452	220	12	H	B	B	070	1	0.4	0.4	OG4VFG8
Z	45E232A	24				24			KC7163199	120	12	H	B	B	381	1	2.5	2.5	OG4VFXL
Z	49110	19				19			KC7152553	220	11	H	B	C	105	1	0.7	0.7	OG4VFGM
Z	6418K00	54				51	3		KC7164207	210	18	O	B	T	815	1	0.1	0.1	OG4VFPZ
Z	726G300	3				3			KC7170341	210	23	D	B	R	374	1	0.8	0.8	OG4VG3K
* TOTALS		2815	0	0	1377	1369	69	0											
		0.00% 0.00% 48.92% 48.63% 2.45% 0.00%																	
** TOTALS		7422	4006	601	1377	1369	69	0											
		53.97% 8.10% 18.55% 18.45% 0.93% 0.00%																	
*** TOTALS		21506	12183	3947	2013	2875	488	0											
		56.65% 18.35% 9.36% 13.37% 2.27% 0.00%																	

Figure 3-48 Detail Mission and Maintenance Data by Aircraft (MAINT-4 Report) (Sample)

ORG : KC7
 ORG Name : VAW-78

NALCOMIS OMA MAINT-5 REPORT (MAINTENANCE MANHOURS) 01 JUN 2003 0000 – 30 JUN 2003 2359

DATE : 16 JUL 2003
 TIME : 0721
 REQ BY: CIV A DBADMIN
 PAGE : 1 of 1

NOTE: THIS IS A LOCAL REPORT FROM THE FOUNDATION SERVER. IT MAY NOT INCLUDE DETACHMENT DATA OR INVENTORY CORRECTIONS INCORPORATED IN UPLINE REPORTING.

Assy Cd	BUNQ	UNSCH MAINT	PHASE/PDM/IMC LOOK	FLX	ACPD/XFER INSP	COND INSP	SPECIAL LOOK	INSP FLX	IDC	TOTAL MHRS	ACFT ELTHRS	DMMH/ ELTHRS
AEBC	161229	206.9	0	0	0	6.4	52.9	28.4	3.6	298.2	31.5	9.5
	162619	120.6	65.9	1.8	0	11.3	90.1	21.1	27.0	337.8	46.9	7.2
	162802	127.1	0	0	0	1.3	34.3	7.6	1.0	171.3	78.3	2.2
	163028	183.3	9.6	22.5	0	5.6	87.3	10.5	1.0	319.8	30.9	10.3
* TOTALS		637.9	75.5	24.3	0	24.6	264.6	67.6	32.6	1127.1	187.6	6
** TOTALS		637.9	75.5	24.3	0	24.6	264.6	67.6	32.6	1127.1	187.6	6

Figure 3-49 Maintenance ManHours (MAINT-5 Report) (Sample)

ORG : KC7
ORG Name : VAW-78

**NALCOMIS OMA
MAINT-6 REPORT
(DETAILED DATA EXTRACT)
01 JUN 2003 0000 – 30 JUN 2003 2359**

DATE : 16 JUL 2003
TIME : 0722
REQ BY: CIV A DBADMIN
PAGE : 26 of 26

NOTE: THIS IS A LOCAL REPORT FROM THE FOUNDATION SERVER. IT MAY NOT INCLUDE DETACHMENT DATA OR INVENTORY CORRECTIONS INCORPORATED IN UPLINE REPORTING.

Completed Date	WC	Assy		WUC/UNS	REMOVED										INSTALLED			MCN		
		Cd	BUNO		ML	TR	AT	MAL	IP	MHRS	EMI	WD	TM	CAGE	Part Number	Semo	CAGE		Part Number	Semo
24 JUN 2003	220	AEB	163028	44210	1	11	C	105	1	0.2	0.2	J	D							0G4VG86
24 JUN 2003	220	AEB	163028	44210	1	11	C	105	1	0.3	0.3	D	B							0G4VG7Z
20 JUN 2003	220	AEB	163028	4422B	1	12	B	080	1	3.6	3.6	J	D							0G4VG46
24 JUN 2003	220	AEB	163028	4422K	1	12	B	080	1	0.5	0.5	D	B							0G4VG7Y
16 JUN 2003	220	AEB	163028	47A1140	1	11	C	160	1	0.3	0.3	C	B							0G4VG0F
02 JUN 2003	220	AEB	163028	49110	1	11	C	105	1	0.7	0.7	H	B							0G4VFG3
11 JUN 2003	220	AEB	163028	56250	1	11	A	799	1	0.3	0.3	D	B							0G4VFUH
22 JUN 2003	220	AEB	163028	734H100	1	23	R	374	1	1.0	1.0	H	B	06481	680100-20	HHX282	06481	680100-20	GUG091	0G4VG3T
13 JUN 2003	220	AEB	163028	734H100	1	18	T	815	1	4.9	4.9	O	B	06481	680100-20	PQB074	06481	680100-20	HHX282	0G4VFXG
07 JUN 2003	220	AEB	163028	734H300	1	18	T	812	1	0.8	0.8	O	B	06481	680500-12	SDT005	06481	680500-12	SDT005	0G4VFPH
16 JUN 2003	220	AEB	163028	734H500	1	11	C	160	1	1.2	1.2	D	B							0G4VG0B
02 JUN 2003	220	AEB	163028	734H600	1	11	S	800	0	2.0	2.0	O	B							0G4VE18
07 JUN 2003	220	AEB	163028	734H600	1	18	T	815	1	0.5	0.5	O	B	06481	680400-6	MHB004	06481	680400-6	LNE025	0G4VFOG
08 JUN 2003	310	AEB	163028	030000A	1	11	O	000	0	2.5	2.5	O	D							0G4VFT1
07 JUN 2003	310	AEB	163028	030000A	1	11	O	000	0	26.1	2.9	O	D							0G4VFEP
01 JUN 2003	310	AEB	163028	030000A	1	11	O	000	0	0.3	0.3	O	D							0G4VF41
22 JUN 2003	310	AEB	163028	030000A	1	11	O	000	0	18.0	3.0	O	D							0G4VG6X
03 JUN 2003	310	AEB	163028	03A0000	1	11	O	000	0	0.5	0.5	O	G							0G4VEY6

Figure 3-50 Detailed Data Extract (MAINT-6 Report) (Sample)

(7) Page 6-1

Paragraph 6.1: MODIFY: “The purpose of this section is to give detailed procedures to be used in documenting maintenance actions. NALCOMIS activities should be prepared to operate in an emergency/contingency mode with MAFs and NAVFLIRS in case of power loss or equipment failure. A “hard copy” of paragraph 6.8 and Chapter 6 figures (MAF samples and procedures) should be made available in Maintenance Control for quick reference.

(8) Page 6-2

Paragraph 6.1.1b: ADD subparagraph (18):

(18) Documentation of O-level and I-level functions supporting D-level maintenance actions.

(9) Page 6-10

Paragraph 6.1.3b, JOB CONTROL NUMBER: MODIFY: “* * *performed by the IMA and depot in support “* * *”.

Paragraph 6.1.3b, A14 SER: DELETE: “(exclusive of I and O)”

(10) Page 6-11

Paragraph 6.1.3b, MCN: MODIFY: “* * * assigned by the system. It serves as a base for MDR and reference for retrieving maintenance data and for Maintenance Control * * *.”

(11) Page 6-23

Paragraph 6.4.1p: MODIFY: “* * * prior to induction into standard rework and retained by the squadron will be documented on a MAF using Malfunction Code 805 and AT code P. Prior to reinstallation, those components should be inducted into IMA for check, test, or service, using a MAF work request. Components authorized to be removed from aircraft, for pool stock, will be * * *.”

(12) Page 6-28

a. Paragraph 6.4.3b(7): REPLACE: “SDLM/PDM” with “standard rework”.

b. Paragraph 6.4.3b(7) NOTE: REPLACE: “SDLM/PDM” with “rework”.

(13) Page 6-32

Following subparagraph 6.7c, INSERT NEW paragraphs 6.7A through 6.7C (with subparagraphs):

6.7A Standard Rework Documentation

a. Rework performed on aircraft (on-site) by naval aircraft industrial establishments, contractor’s plants, and other industrial organizations designated by COMNAVAIRSYSCOM will be documented using control, look, and fix phase documents.

b. Communication between the depot and the squadron is crucial since the squadron is responsible for all aircraft readiness status changes for the depot.

(1) Depot activities will notify the reporting custodian upon arrival of the aircraft to be inducted into rework. At that time, the squadron will initiate the rework control document placing the aircraft in rework status.

(2) When the depot activity is ready to change the status of the aircraft, the depot will notify the squadron, which will complete the control document to terminate the aircraft standard rework status.

c. Rework hours commence accumulation at standard rework control document initiation. Rework hours stop accumulation when the CDI entry is entered on the last outstanding look phase document.

NOTE: The rework process encompasses the look phase only for rework purpose.

d. An individual with administrative certification authority may complete and sign the control document.

e. Detailed documentation:

(1) The control document will be initiated by the reporting activity (paragraph 6.8.91).

(2) Look phase documents will be issued for O-level support of standard rework (paragraph 6.8.92).

(3) Look phase documents will be issued for I-level support of standard rework (paragraph 6.8.92). While functioning in this effort, I-level personnel will comply with O-level QA, tool control, and documentation requirements.

NOTE: Look phase documents are not issued for D-level. Therefore, Work Center X43 is not currently used and is reserved for future use.

(4) Fix phase documents will be issued for repair of discrepancies discovered during the on-site standard rework process (paragraph 6.8.93).

(a) O-level (level 1) discrepancies will be completed by the squadron.

NOTE: To provide accurate man-hour accounting by rate, corrective maintenance actions shall be documented against the host work center whenever practical (110, 120, etc.).

(b) I-level (level 2) discrepancies will be completed using the Work Request (paragraph 6.4.3).

(c) D-level (level 3) discrepancies will be accomplished by a D-level activity using assist work center procedures (paragraphs 6.8.15 and 6.8.94). If, in the repair process, a repairable is required the repairable will be ordered on the O-level primary MAF.

6.7B In-Service Repair

a. **ISR** is the repair by COMNAVAIRSYSCOM FS activities of aircraft damaged beyond the repair capability of ACCs' maintenance activities.

b. **ISR** will be accomplished using assist work center procedures (paragraphs 6.8.15 and 6.8.94).

6.7C Modification

a. Modification is rework performed on new production aircraft and aircraft in the controlling custody of the operating commands. It includes only the incorporation of changes and bulletins and the correction of discrepancies as required in the directive authorizing the work to be performed.

b. Modification will be accomplished using TD incorporation procedures (paragraph 6.8.95).

(14) Page 6-85

a. Paragraph 6.8.90: ADD NEW paragraphs 6.8.91 through 6.8.95:

6.8.91 Standard Rework Control Document

Figure 6-104 is an example of a completed **IMC/P** control document. No SCIR EOC code will be documented on IMC/P control documents. The following explains documentation:

ENTRIES REQUIRED SIGNATURE - Check the appropriate box(es) and enter signature and rate/rank.

ACCUMULATED AWM HOURS - Enter the appropriate data (if applicable).

(H-Z) - Enter the data to identify the engine (if applicable).

A22 - Enter the appropriate WUC. **PDM** or **IMC/P** are sequential 030IMC1, 030IMC2, etc. rework (**MCI** or **ASPA**) is 030REWK.

A29 - Enter the appropriate D-level organization code.

A32 - TRCODE must be 11. (Appendix P)

A34 - Maintenance level; must be 3.

A35 - AT code; must be 0. (Appendix E)

A36 - MAL description code; must be 000. (Appendix I)

A39 - Items processed; must be 1.

A41 - Man-hours; 0.0.

A45 - EMT; 0.0.

A48 - Enter the TEC for the equipment

A52 - Enter the appropriate BU/SERNO.

A58 - WD code; must be O. (Appendix R)

A59 - TM code; must be G. (Appendix H)

B08 through B34 - Enter the Julian date and time that work was received, started, or completed.

A08 through A14 - Enter the assigned phase rework JCN.

A19 - Enter the appropriate work center code. (Appendix S)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED-INSPECTED-SUPERVISOR-MAINT CONTROL - Enter the appropriate signatures and rates/ranks.

6.8.92 Standard Rework Look Phase Document

Figure 6-105 is an example of a completed rework look phase document. Look phase documents are issued to each work center participating in the IMC/P inspection. No SCIR EOC code will be documented on look phase documents. The following explains documentation:

ENTRIES REQUIRED SIGNATURE - Check the appropriate box(es) and enter signature and rate.

ACCUMULATED WORK HOURS - Enter the appropriate data.

A22 - Enter the appropriate WUC. PDM or IMC/P are sequential 030IMC1, 030IMC2, etc. rework (MCI or ASPA) is 030REWK.

A29 - Enter the appropriate O-level organization code.

A32 - TRCODE; must be 11. (Appendix P)

A34 - Maintenance level; must be 1 for O-level or 2 for I-level.

A35 - AT code; must be 0. (Appendix E)

A36 - MAL description code; must be 000. (Appendix I)

A39 - Items processed; must be 0.

A41 - Enter the total number of man-hours expended.

A45 - Enter the total EMT that applies.

A48 - Enter the TEC for the equipment.

A52 - Enter the appropriate BU/SERNO.

A58 - WD code; must be O. (Appendix R)

A59 - TM code; must be G. (Appendix H)

B08 through B34 - Enter the appropriate Julian date and time action was initiated, reported in work, and completed.

A08 through A14 - Enter the assigned phase rework JCN from the Control Document.

A19 - Enter the appropriate work center code. (Appendix S)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED-INSPECTED-SUPERVISOR-MAINT CONTROL - Enter the appropriate signatures and rates.

6.8.93 Standard Rework Fix Phase Document

Figure 6-106 and 6-107 are examples of completed fix phase O-level rework documents. See paragraph 6.8.94 (ISR) for documenting D-level discrepancies found during standard rework or during other aircraft maintenance. The following explains documentation:

ENTRIES REQUIRED SIGNATURE - Check the appropriate box(es) and enter signature and rate/rank.

ACCUMULATED WORK HOURS - Enter the appropriate data (if applicable).

ACCUMULATED AWM HOURS - Enter the appropriate data (if applicable).

(H-Z) - Enter the failed part(s)/record supply requisition(s) (if applicable).

A22 - Enter the specific WUC of the item being repaired/replaced.

A29 - Enter the appropriate O-level organization code.

A32 - Enter the appropriate TRCODE. (Appendix P)

A34 - Maintenance level; must be 1.

A35 - Enter the appropriate AT code. (Appendix E)

A36 - Enter the appropriate MAL description code. (Appendix I)

A39 - Enter the total number of items processed.

A41 - Enter the total number of man-hours expended.

A45 - Enter the total EMT that applies.

A48 - Enter the TEC for the equipment.

A52 - Enter the appropriate BU/SERNO.

A58 - WD code; must be M. (Appendix R)

A59 - TM code; must be G. (Appendix H)

A60 - Enter the POSIT (if applicable).

B08 through B34 - Enter the appropriate Julian dates and times that work was received, started, or completed.

E08 through E52 - Enter the appropriate data for the removed/old item (if applicable).

G08 through G48 - Enter the appropriate data for the installed/new item (if applicable).

A08 through A14 - Enter the assigned JCN. The JCN serial number will contain the same data elements entered on the control document, but with sequential numbering from 01 to 99 in the second and third positions of the serial number, for example, A01, A02, A03. If more than 99, use alpha characters in the second and third position, for example, AA1 through AA9, AB1.

A19 - Enter the appropriate work center code. (Appendix S)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED-INSPECTED-SUPERVISOR-MAINT CONTROL - Enter the appropriate signatures and rates/ranks.

6.8.94 In-Service Repair Document

Figure 6-108 is an example of a completed in-service repair document. No SCIR EOC code will be documented. The following explains documentation:

ENTRIES REQUIRED SIGNATURE - Check the appropriate box(es) and enter signature and rate/rank.

ACCUMULATED WORK HOURS - Enter the appropriate data (if applicable).

ACCUMULATED AWM HOURS - Enter the appropriate data (if applicable).

(H-Z) - Enter the failed part(s)/record supply requisition(s) (if applicable).

A22 - Enter the specific WUC of the item being repaired/replaced.

A29 - Enter the appropriate D-level organization code.

A32 - TRCODE: 11

A34 - Maintenance level; must be 3.

A35 - Enter the appropriate AT code. (Appendix E)

A36 - Enter the appropriate MAL description code. (Appendix I)

A39 - Enter the total number of items processed.

A41 - Enter the total number of man-hours expended.

A45 - Enter the total EMT that applies.

A48 - Enter the TEC for the equipment.

A52 - Enter the appropriate BU/SERNO.

A58 - WD code; must be V. (Appendix R)

A59 - Enter the appropriate TM code (Appendix H)

A60 - Enter the POSIT (if applicable).

B08 through B34 - Enter the appropriate Julian dates and times that work was received, started, or completed.

A08 through A14 - Enter the assigned squadron JCN.

A19 - Enter the appropriate work center code. (Appendix S)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED-INSPECTED-SUPERVISOR-MAINT CONTROL - Enter the appropriate signatures and rates/ranks.

6.8.95 Modification Document

Modification includes only the incorporation of changes and bulletins and the correction of discrepancies as required in the directive authorizing the work to be performed. Figure 6-109 is an example of a completed D-level modification document. No SCIR EOC code will be documented. The following explains documentation:

ENTRIES REQUIRED SIGNATURE - Check the appropriate box(es) and enter signature and rate/rank.

A22 - Enter the specific WUC identified in the TD.

A29 - Enter the appropriate D-level organization code.

A32 – TRCODE: must be 41 or 47. (Appendix P)

A34 - Maintenance level must be 3.

A35 - Enter the appropriate AT code. (Appendix J)

A39 - Item processed must be 1.

A41 - Enter the total number of man-hours identified in the TD.

A45 - Enter the total EMT that applies (in work through completion).

F08 through F19-Enter the 12- or 13-character code that identifies the specific TD to be incorporated into the type equipment identified in block A48.

A48 - Enter the TEC for the equipment.

A52 - Enter the appropriate BU/SERNO.

B08 through B34 - Enter the appropriate Julian dates and times that work was received, started, or completed.

E08 through E52 - Enter the appropriate data for the removed/old item (if applicable).

G08 through G48 - Enter the appropriate data for the installed/new item (if applicable).

A08 through A14 - Enter the assigned squadron JCN.

A19 – Enter the appropriate work center code. (Appendix S)

DISCREPANCY - Enter the narrative description of the discrepancy.

CORRECTIVE ACTION - Enter the narrative description of the corrective action.

CORRECTED-INSPECTED-SUPERVISOR-MAINT CONTROL - Enter the appropriate signatures and rates/ranks.

(15) Following Figure Page 6-103, ADD new figures 6-104 through 6-109

(16) Page 7-1

a. **Paragraph 7.2b(2): MODIFY:** “Discrepancies identified by system users will be forwarded to the CDA and a copy to their TYCOM using SMTS or NALCOMIS TR/CP message format provided in the OMA-SAM. All supporting TR documentation must be * * *.”

b. **Paragraph 7.2c: MODIFY:** “The Functional Manager (COMNAVAIRSYSCOM (AIR-3.6)) will establish a NALCOMIS CCB to maintain control of the NALCOMIS baseline through the application of configuration management. The CCB will operate * * *.”

c. **Paragraph 7.2d: DELETE: first four sentences and MODIFY last sentence:** “The SA is responsible for establishing and maintaining user accounts.”

d. **Following paragraph 7.2d, ADD NEW** subparagraph e: “e. The user maintains passwords”.

e. **Paragraph 7.3a: MODIFY:** “NALCOMIS OMA and NTCSS Optimized OMA NALCOMIS provides an effective MIS capability to satisfy various functional requirements of the NAMP. It provides Navy and Marine Corps O-level and I-level activities with* * *. NALCOMIS OMA and NTCSS Optimized OMA NALCOMIS allows* * *.”

(17) Page 7-2

Paragraph 7.3b(11) NOTE: INSERT “OMA-UG/Online Help” after “OMA-SAM” on line 2.

(18) Page 7-3

a. **Paragraph 7.3.1a: REPLACE w with:** “NALCOMIS OMA interfaces with NALCOMIS IMA for turn-in MAFs and requisitions. Flight and aviation 3M data extracts are created and submitted via electronic medium (LAN or diskette) to the local NDCSC for upline submission to NALDA ADW.”

b. **Paragraph 7.3.1b: REPLACE with:** “NTCSS Optimized OMA NALCOMIS interfaces with NALCOMIS IMA and NTCSS Optimized IMA NALCOMIS. The interface consists of the requisition requirements, requisition status, requisition queries, and turn-in WO data. Upline submission to NALDA ADW is accomplished by data replication.”

c. **Paragraph 7.3.1c: REPLACE with:** “NTCSS Optimized OMA NALCOMIS interfaces with aircraft type model unique developed software, when provided. For example, data download from aircraft, automated debrief, electronic technical manuals, engine life usage calculations, and additional functionality that may be developed by a platform.”

d. **Paragraph 7.3.1d: DELETE.**

e. **Paragraph 7.3.2a: MODIFY:** “NALCOMIS OMA and NTCSS Optimized OMA NALCOMIS require an administrative structure for operating the system. The basic administrative structure will remain * * *.”

f. **Paragraph 7.3.2b: MODIFY:** “* * *required to administer the operations of NALCOMIS OMA and NTCSS Optimized OMA NALCOMIS; the SA/A, assistant SA/A, and the DBA. NDCSC skills and NAMP knowledge qualify them for the position. The primary SA/A shall be the analyst with a collateral duty of systems administrator. The assistant SA/A's focus is on maintaining NALCOMIS and not the other duties associated with the analyst billet. The assistant SA/A's presence and use is of the utmost importance since there is usually only one primary SA/A assigned per squadron and several additional work shifts, as well as additional detachments, that will be required to be covered. Both shall provide the local expertise

necessary to resolve system and functional related problems and ensure smooth operations.”

g. Paragraph 7.3.2b(1): REPLACE with: “The primary SA/A shall.”

h. Paragraph 7.3.2b(1)(b): MODIFY: “Identify user problems and submit NALCOMIS “TRs/CPs via SMTS or to SPAWARSYSCEN Norfolk”, VA, per OMA-SAM and TYCOM directives”.

i. Paragraph 7.3.2b(1)(f): MODIFY: “Perform system and data base backups, data base restores, and detachment processing functions (as required).”

j. Paragraph 7.3.2b(1)(g): ADD, at the end of the sentence: “such as aircraft transfers and detachment set-up.”

(19) Page 7-4

a. Paragraph 7.3.2b(1)(n): MODIFY: “Provide formal in-service and informal training to maintenance personnel on NALCOMIS operations, MIS security, and aviation 3M documentation.”

b. Paragraph 7.3.2b(1)(o): MODIFY: “Perform all duties described in the OMA-SAM and OMA-UM.”

(20) Page 7-5

a. Paragraph 7.3.3: MODIFY: “* * * are the main data entry personnel for NALCOMIS OMA and NTCSS Optimized OMA NALCOMIS. They must protect their passwords and access to * * *.”

b. Paragraph 7.3.4a: MODIFY: “Detachment processing consists of two types, same organization code and different organization code. Same * * * by the O-level. Different organization code processing applies to permanent detachment operations, where detachments are assigned different organization codes and PUCs.”

c. Paragraph 7.3.4b: REPLACE 2nd sentence with: “For same organization code detachments, processing AIRS, AEMS, aviation 3M, flight data, and aircrew data documentation is the responsibility of the parent O-level activity.”

d. Paragraph 7.4b: REPLACE with: “NTCSS Optimized IMA NALCOMIS specific documentation procedures and input and output formats are in the NALCOMIS IMA desktop guides and J-004 UM-002.”

(21) Pages 7-5 and 7-6

e. DELETE: Paragraphs 7.4b(1) through (10) (include subparagraphs).

(22) Page 7-6

Paragraph 7.4 NOTE: REPLACE with: “NOTE: IMAs will perform Configuration Status Accounting, for aircraft engines, SE for OMA peculiar SE when PMs are due, personnel management baselines, and perform TD documentation in NTCSS Optimized OMA NALCOMIS.”

(23) Page 7-7

a. Paragraph 7.4.1a: DELETE.

b. Paragraph 7.4.1b: MODIFY: “NTCSS Optimized IMA NALCOMIS interfaces with NALCOMIS OMA and NTCSS Optimized OMA NALCOMIS” The interface establishes a link between the

IMA and the O-level Material Control and the [supporting ASD](#). This interface provides the O-level the [limited](#) ability [to query supply](#) related functions.”

c. Paragraph 7.4.1c: MODIFY: “NALCOMIS IMA interfaces with the [NDCSC](#) for upline submission of aviation 3M data. The IMA submits data for submission via electronic medium”.

d. Paragraph 7.4.1d: CHANGE: “NALCOMIS” to “[NTCSS Optimized IMA NALCOMIS](#)”.

e. Paragraph 7.4.1e: CHANGE: “NALCOMIS” to “[NTCSS Optimized IMA NALCOMIS](#)”.

f. Paragraph 7.4.2a: MODIFY: “[NTCSS Optimized IMA NALCOMIS](#) installed at shore activities and aboard ships requires an administrative organization for operating the system. The basic organizational structure of [the system](#) will remain the same * * * the operations of [NTCSS Optimized IMA NALCOMIS](#).”

g. Paragraph 7.4.2a NOTE: MODIFY: “* * *individual. For Marine Corps activities, [the AISD](#) supports [NTCSS Optimized IMA NALCOMIS hardware, network connectivity, and user access rights and privileges up to and including workstation operating system login. The Maintenance NALCOMIS Application Administrator/Analyst \(MOS 6049\) supports the NALCOMIS application, including SMQs, and ensures data base integrity.](#)”

h. Paragraph 7.4.2b: CHANGE: “NALCOMIS” to “[NTCSS Optimized IMA NALCOMIS](#)”.

i. Paragraph 7.4.2c: MODIFY: “* * * data base in the [NTCSS](#) Optimized IMA [NALCOMIS](#) system and is assigned to coordinate the operation and maintenance of the data base. The functional DBAs assist the DBA in managing the [NTCSS Optimized IMA NALCOMIS](#) data base and performs the DBA duties in their absence. The DBA is recommended to be the [MIS](#) or Operations Supervisor. Detailed * * *.”

j. Paragraph 7.4.2d: CHANGE: “NALCOMIS IMA” to “[NTCSS Optimized IMA NALCOMIS](#)”.

(24) Page 7-8

a. Paragraph 7.4.2d(2)(a): CHANGE: “NALCOMIS IMA” to “[NTCSS Optimized IMA NALCOMIS](#)”.

b. Paragraph 7.4.2d(8): CHANGE: “NALCOMIS IMA” to “[NTCSS Optimized IMA NALCOMIS](#)”.

c. Paragraph 7.4.2d(10): CHANGE: “NALCOMIS IMA” to “[NTCSS Optimized IMA NALCOMIS](#)”.

d. Paragraph 7.4.2d(11): MODIFY: “* * * as a guide [for NTCSS Optimized OMA NALCOMIS and NTCSS Optimized IMA NALCOMIS](#) to be used in the event of a system failure or down time.”

e. Paragraph 7.4.2d(11) NOTE: MODIFY: “* * * the accuracy of the [NTCSS Optimized IMA](#) data base as reflected against the local supply systems, for example, [Rsupply](#). Perform utility programs as required.”

f. Paragraph 7.4.3: REPLACE: “NALCOMIS” with “[NTCSS Optimized](#)”.

(25) Page 8-2

- a. Paragraph 8.1c: **MODIFY:** “NALCOMIS MAF and NTCSS Optimized OMA NALCOMIS CM ALS records flow.”
- b. Paragraph 8.1c(1)(a): **ADD** after last sentence: “NTCSS Optimized OMA NALCOMIS CM ALS record will be moved to an induction status.”
- c. Paragraph 8.1c(1)(b): **MODIFY:** “* * * message, PC Approval Required and move the NTCSS Optimized OMA NALCOMIS CM ALS record to Induction Status. Production Control approves * * *.”
- d. Paragraph 8.1c(1)(e): **ADD** after last sentence: “For NTCSS Optimized OMA NALCOMIS, components or subcomponents that are removed and replaced will be documented in the CM task. Procedures are in the OMA-UG/Online Help.”
- e. Paragraph 8.1c(1)(f): **ADD** after last sentence: “For NTCSS Optimized OMA NALCOMIS, components or subcomponents that are removed and replaced will be documented in the CM task. Procedures are in the /Online Help.”

(26) Page 8-3

- a. Paragraph 8.1c(1)(l): **MODIFY:** “* * * approves the MAF, NALCOMIS prints two copies of the completed MAF. The first copy is routed with the component and the other one is retained by the work center for maintenance report verification. For NTCSS Optimized OMA NALCOMIS, ensure CM ALS records accurately reflect SERNO, CAGE, P/N, status, and configuration of the component.”
- b. Paragraph 8.1c(1)(m): **ADD** after last sentence: “DIFM return moves NTCSS Optimized OMA NALCOMIS CM ALS records to RFI, BCM, or out folder (as applicable).”
- c. Paragraph 8.1c(1)(o) **NOTES: ADD** to note 2: “The NTCSS Optimized OMA NALCOMIS CM ALS records will be delivered electronically to the ALSS/Armament Equipment Branch. ALSS/armament equipment maintenance will be documented in CM task. CM inventory will accurately reflect the physical status.”
- d. Paragraph 8.1c(3)(a)1): **ADD** after last sentence: “When Production Control receives SE that is in NTCSS Optimized OMA NALCOMIS all maintenance will be documented using CM task. CM Inventory will accurately reflect physical status.”
- e. Paragraph 8.1c(3)(a)3) **NOTE: ADD** after last sentence: “For NTCSS Optimized OMA NALCOMIS CM ALS records, SE will accurately reflect physical status using the CM Inventory update. CM Task has to be used to update NTCSS Optimized OMA NALCOMIS CM ALS records. Procedures are in the OMA-UG/Online Help.”

(27) Page 8-5

Paragraph 8.1e: **REPLACE** with: Maintenance Reports. Maintenance reports are valuable tools available to the maintenance manager.

(28) Page 8-6

- a. Paragraph 8.1f(2)(a)1): **MODIFY:** “* * * tag, and associated records or NTCSS Optimized OMA NALCOMIS CM ALS records from the work center and forwards them to DCU.”

b. Paragraph 8.1f(2)(a)3): ADD after last sentence: “NTCSS Optimized OMA NALCOMIS CM ALS records are transferred electronically to the UIC that the component is shipped to.”

c. Paragraph 8.1f(2)(b)1): MODIFY: “Supply receives the defective component with the D action MAF, associated records, or NTCSS Optimized OMA NALCOMIS CM ALS records and DOD Single * * *.”

d. Paragraph 8.1f(2)(b)2): MODIFY: “Supply delivers the defective component, MAF, and associated records or NTCSS Optimized OMA NALCOMIS CM ALS records to AMSU.”

e. Paragraph 8.1f(2)(b)4): MODIFY: “* * * with a completed MAF, and associated records or NTCSS Optimized OMA NALCOMIS CM ALS records from the work center or Production Control.”

f. Paragraph 8.1f(2)(b)6): ADD after last sentence. “NTCSS Optimized OMA NALCOMIS CM ALS records are transferred electronically to the UIC that the component is shipped to.”

g. Paragraph 8.1f(2)(c)1): MODIFY: “Supply receives component, MAF, associated records or NTCSS Optimized OMA NALCOMIS CM ALS records, and DOD Single Line Item Release * * *.”

h. Paragraph 8.1f(2)(c)2): MODIFY: “Supply delivers RFI component and records or NTCSS Optimized OMA NALCOMIS CM ALS records to the customer. Non-RFI components * * *.”

(29) Page 8-7

a. Paragraph 8.2b: MODIFY: “Maintenance Reports. All division officers shall become knowledgeable of and familiar with maintenance reports concerning their division.”

b. Paragraph 8.2c: MODIFY: “Division officers shall develop an understanding of NALCOMIS and NTCSS Optimized OMA NALCOMIS concepts and applications to management and MIS requirements.”

(30) Page 9-2

Paragraph 9.1.2h: MODIFY: “* * * * work center, which is used to verify the maintenance report. The * * * * records for review. Logs and records personnel will ensure NTCSS Optimized OMA NALCOMIS CM ALS records are updated for the component or equipment that is changed.”

(31) Page 9-3

Paragraph 9.1.3b, ENTRIES REQUIRED SIGNATURE: MODIFY: “This section is provided to ensure historical records and NTCSS Optimized OMA NALCOMIS CM ALS records are updated * * * *.”

(32) Page 9-8

a. Paragraph 9.1.3b, REMOVED/OLD ITEM: ADD to last sentence: “, or NTCSS Optimized OMA NALCOMIS CM ALS records.”

b. Paragraph 9.1.3b, INSTALLED/NEW ITEM: ADD to last sentence: “, or NTCSS Optimized OMA NALCOMIS CM ALS records.”

(33) Page 9-21

a. Paragraph 9.3.4e: ADD after subparagraph d: “O-level activities that have NTCSS Optimized OMA NALCOMIS CM ALS records must coordinate with the supply department and IMA to

ensure the integrity of NTCSS Optimized OMA NALCOMIS CM ALS records. Records must be properly stricken or removed from the aircraft NTCSS Optimized OMA NALCOMIS CM ALS records and transferred to the supply department for further documentation.”

(34) ADD New NTCSS Optimized OMA NALCOMIS Chapter:

CHAPTER 10 – NTCSS Optimized OMA NALCOMIS Data Collection System

10.1 Introduction

a. Purpose. NTCSS Optimized OMA NALCOMIS was developed as part of ADW and provides data input through local data collection and the ability to extract data for the efficient and economical maintenance management.

b. Scope. ADW is sponsored by the CNO (N781), administered through the operating chain of command, and provides global distribution of information throughout DOD. Technical support is provided by SPAWARSSYSCEN Norfolk, VA and COMNAVAIRSYSCOM (AIR-3.6).

(1) ADW is a MIS designed to provide statistical data for use at all management levels relative to:

- (a) Equipment maintainability and reliability.
- (b) Equipment configuration, including alteration and TD status.
- (c) Equipment mission capability and use.
- (d) Material usage.
- (e) Material non-availability.
- (f) Maintenance and material processing times.
- (g) Weapon system and maintenance material costing.

(2) It is CNO policy that data users will collect data at the source, only once. Redundant data collection and reporting will be eliminated. NTCSS Optimized OMA NALCOMIS shall be used as the only means of collecting source data in support of the information areas outlined above.

(3) Unless specifically directed by CNO, compliance with procedures in this chapter is mandatory for all Navy and Marine Corps aviation activities and Cognizance Symbol 2O aviation training device activities.

(4) Subordinate operating or systems commands are not authorized to impose additional maintenance data collection requirements on fleet activities or modify the procedures in this chapter without prior approval of CNO.

(5) Command Responsibility. NTCSS Optimized OMA NALCOMIS provides a valuable tool for use by maintenance management. To achieve its designed purpose, NTCSS Optimized OMA NALCOMIS requires command attention, support, and use. The Work Center Supervisor and CDI must understand proper procedures for using NTCSS Optimized OMA NALCOMIS and information obtained from electronic reports. The Work Center Supervisor must assure complete and accurate documentation and ensure work

center personnel are properly trained. The input will be used to provide management products for use by the highest levels of Navy and Marine Corps management.

10.2 Program Manager

The SPAWARSYSCEN (PMW-151) NTCSS Program Manager will coordinate with the Functional Manager, COMNAVAIRSYSCOM (AIR-3.6), to ensure aviation functional requirements are incorporated into the NTCSS system requirements. Functional specifications and requirements will remain valid until COMNAVAIRSYSCOM (AIR-3.6) functional manager approves appropriate changes. The Program Manager:

- a. Reviews functional course curricula for incorporation in NTCSS technical training and prepares a functional annex inclusion in the NTCSS SNTP.
- b. Develops detailed functional descriptions and solutions to requirements with the assistance of user groups or fleet design team.
- c. Coordinates change proposals with the TYCOMs for submission to the NTCSS requirements integrated product team.

10.3 Functional Manager

COMNAVAIRSYSCOM (AIR-3.6), the Functional Manager for aviation maintenance and logistics information systems, performs the following in relation to NTCSS Optimized OMA NALCOMIS:

- a. Prepares system and subsystem specifications for NTCSS Optimized OMA NALCOMIS.
- b. Establishes and maintains organizational structures and procedures, such as user group and fleet design team conferences, to ensure full and active user community participation in the definition, review, and certification of functional requirements in all aspects of module development and maintenance.
- c. Prepares test plans and test analysis reports to support the functional certification of the NTCSS functional software modules and certifies functional adequacy of cognizant modules in acceptance tests.
- d. Ensures the NTCSS Optimized OMA NALCOMIS maintenance systems requirement documents are kept current and reflect proper justification for policies and improved business procedures and tracks changes to ensure benefits are achieved.
- e. Coordinates with the Office of the CMC to ensure Marine Corps peculiar expeditionary/operational functional requirements are met.
- f. Acts as voting member of the NTCSS requirement integrated product team.
- g. Standardizes NALCOMIS functionality for both O-level and I-level maintenance activities.
- h. Establishes criteria to ensure data validity is achieved at initial data entry and maintained throughout the system.

10.4 Central Design Activity

SPAWARSYSCEN Norfolk, VA, as the CDA, is responsible for generating source and object programs and QA testing of programs prior to fleet release. Programs and operating instructions, tailored to the capabilities of the individual hardware suites, are issued to the NDCSC, squadrons, AIMDs, and NAVAIRDEPOTs.

10.5 Aviation Data Warehouse

a. ADW is maintained by COMNAVAIRSYSCOM (AIR-3.6) and receives data from the NALCOMIS Data Collection System.

b. NALCOMIS Data Collection System consists of the Foundation Tier, Mid Tier, Top Tier, and Wholesale Foundation Tier (Figure 10-1).

(1) Foundation Tier. This tier is located at O-level, I-level, and D-level maintenance activities and consists of the following modules:

(a) Maintenance Subsystem. This subsystem enables authorized maintenance personnel to document scheduled and unscheduled maintenance against aircraft and other end items assigned to the activity. The maintenance subsystem provides a list of parts and enables personnel to issue WOs to fix discrepancies. It provides the capability to track tools and personnel. It also enables personnel to update or query WOs, to requisition parts, and to sign off scheduled and unscheduled maintenance and material requirements.

(b) Material Subsystem. This subsystem enables authorized maintenance personnel to track components on order against an activity's aircraft or other end items. It provides material control processing interface between NTCSS Optimized OMA NALCOMIS and supply centers (NTCSS Optimized IMA NALCOMIS). The information enables management to:

1) Relate material issues/turn-ins to weapon systems and components by activity and maintenance level.

2) Advise higher commands of material expenditures in support of maintenance.

3) Determine weapon system support costs at O-level, I-level, and D-level.

(c) Flight Subsystem. This subsystem enables authorized users to collect and process flight-related data. This includes export and import of aircrew personnel flight data interface with SHARP/FIST-capable activities. The flight hours annotated on a flight document directly affect the Maintenance Subsystem and the Configuration Management Subsystem. It is important authorized users enter correct flight data in a timely manner.

(d) Platform software interface (SMART Aircraft Module). This module permits transfer of information from systems onboard SMART aircraft directly into NTCSS Optimized OMA NALCOMIS. It has the capability to strip data from SMART aircraft and separate it by flight. The Flight Module processes this information before up-line submission. This data includes structure fatigue information, strain gauge data, engine LUI and diagnostics data, engine management system data, flight control system data, position data, avionics system data, fault codes, and component life time/cycle data. The module provides a pilot/maintainer debrief capability with fully integrated IETM, an engine/aircraft diagnostics/prognostics capability, PEDD support, and automatic identification technologies.

(e) CM/Logs and Records Subsystem. Enables authorized users to maintain configuration profiles for aircraft, engines, propellers, modules, and components assigned to the maintenance activity. Configuration profiles are found in the following explorers or catalogs:

- 1) WAN Explorer.
- 2) Group Explorer.
- 3) Inventory Explorer.
- 4) Log-set Retrieval.
- 5) Assembly Catalog and Assembly Explorer (accessed from the Assembly Catalog).
- 6) Parts Catalog.
- 7) DODIC Catalog.
- 8) Reference Term Editor.
- 9) Maintenance Plan Catalog.
- 10) Configuration Management Report Generator.
- 11) XRAY Explorer.

NOTE: The OMA-UG/Online Help provides detailed information of the records and hot link definitions functionality.

(f) AD HOC Subsystem. Enables authorized users to create customized queries from the application data base tables. The user can establish criteria for the data elements, perform calculations, sort and group items, manually create graphs, specify print formats, and perform analysis on data currently maintained in the data base. This utility assists maintenance managers in asset management and helps reduce man-hours expended in the manual processing of available data.

NOTE: Data retrieved only reflects information applicable to equipment in physical custody of the reporting custodian.

(g) Personnel Subsystem. This subsystem enables authorized users to access personnel information, SMOs and task tables. Users can add or remove personnel, assign or remove SMOs, and make work center personnel assignments. It also provides the capability to view aircrew data.

(2) Mid Tier. This tier provides the link for passing data from the Foundation Tier to the Top Tier and receives data from baseline servers. It also provides temporary storage for data when connectivity to the Top Tier is lost.

NOTE: When an activity is required to shift from one Mid Tier to another, the relocating activity shall change Internet Protocol address. The Optimized OMA System and Database Administration Guide contains detailed information.

(3) Top Tier. This tier provides intermediate storage for data and the up-line link to the COMNAVAIRSYSCOM (AIR-3.6) ADW repository.

(4) Wholesale Foundation Tier. This tier provides a storage data base and query capability to support movement of components from I-level to D-level or to vendors and return to the retail system. It also provides data storage for stricken aircraft and NALCOMIS aircraft transferred to non-NALCOMIS activities.

10.6 Data Accuracy

a. Accurate documentation must be a continuous concern throughout NTCSS Optimized OMA NALCOMIS. The SA/A must ensure discrepancies are documented via SMTS, BTDR, or a change proposal to the aviation 3M MDS VALSPEC Guide (A7257-01) (<https://www.nalda.navy.mil/valspec/>).

(1) Higher level Navy managers use this data to:

- (a) Analyze high system failures and high man-hour consumers by specific weapon system.
- (b) Identify desirable product improvements.
- (c) Analyze inspection requirements as a basis for adjusting inspection criteria and intervals.
- (d) Adjust component scheduled removal intervals.
- (e) Improve I-level repair capabilities.
- (f) Identify failed items under warranty.
- (g) Establish realistic manning factors.
- (h) Determine and justify the need for modifications and engineering changes.
- (i) Establish equipment reliability factors.
- (j) Determine tooling and equipment requirements.
- (k) Predict probable failures through trend analysis.
- (l) Determine the status of compliance with mission readiness type TDs.
- (m) Monitor aircraft readiness trends in support of Congressional and Joint Service initiatives.

(2) At the local level, summaries of this data will assist in identifying (with documented evidence) the following:

- (a) High man-hour per operating hour equipment (by SERNO or type equipment).
- (b) Man-hours lost to cannibalization and removal of items to FOM.
- (c) Areas with skill or training deficiencies.
- (d) Efficient or inefficient use of available manpower.
- (e) Items with high failure rates.

- (f) Inadequate troubleshooting.
- (g) Reasons for ground and in-flight aborts.
- (h) High usage items.
- (i) Status of TD compliance.
- (j) Warranted item failure and subsequent repair.

b. Data Validation. The aviation 3M MDS VALSPEC Guide (A7257-01) (<https://www.nalda.navy.mil/valspec/>) is the CDA's software development document for ensuring valid data. Entries are validated against these specifications at point of entry.

10.7 Data Codes

a. Codes already available, both within the Navy or in other services, have been adopted and used in NTCSS Optimized OMA NALCOMIS (as applicable). Some codes prescribed, such as work center codes, have been given limited structuring and have flexibility to allow additional structuring to meet local management needs. Additional codes, used in combination with other information, form identifiers for control and other purposes. For example, a combination of the organization code, Julian date, and a non-significant locally assigned sequence number is used to generate a JCN. A list of NTCSS Optimized OMA NALCOMIS codes is in Chapter 2, Figure 2-6.

b. Stability and Control of Codes. Codes contained in this instruction are for Navy-wide use and may not be altered locally. SPAWARSYSCEN Norfolk, VA, is authorized to control the codes used in NTCSS Optimized OMA NALCOMIS, with the exception of aircraft status codes (OPNAVINST 5442.2), TMR codes (OPNAVINST 3710.7), EOC codes (OPNAVINST 5442.4), and WUCs. WUCs are controlled by NATEC under COMNAVAIRSYSCOM cognizance.

c. SMART Aircraft Codes. These codes, normally known as usage parameters, are generated and controlled by COMNAVAIRSYSCOM PMAs for downloading from a MU to NTCSS Optimized OMA NALCOMIS.

10.8 Maintenance Information System Queries and Reports

The aircraft VED is the starting point for all aircraft maintenance related reports/queries. This screen is displayed when users are in the maintenance module within the NTCSS Optimized OMA NALCOMIS application.

10.8.1 Active Work Order Query

a. The Active Work Order Query will display a list of all WOs retrieved against an aircraft, SE, ALSS, MME, or uninstalled equipment item selected from a VED window. WOs listed on this window have MCNs and JCNs assigned, with the exception of the ORG, the user can clear the fields and select criteria to retrieve specific WOs. The user may select WOs to view; update; order material; assign aircraft, SE, ALSS, or MME items for cannibalization authority; or complete.

b. All VED entries are color-coded to easily identify status.

- (1) Red - NMC.

(2) Blue - PMC.

(3) Black - FMC.

NOTE: The [OMA-UG/Online Help](#) provides additional information.

10.8.2 Historical Work Order Query

Historical WOs are completed maintenance actions that are part of the history files. They enable the user to enter selection criteria and view details on selected historical WOs.

NOTE: The [OMA-UG/Online Help](#) provides additional information.

10.8.3 Aircraft Daily Status Report

a. Selecting the Aircraft Daily Status Report enables the user to generate reports containing data on each BUNO assigned to the organization. The date defaults to the current date to ensure that users are viewing or generating the current data. The dates can be modified to view the number of flight hours and number of sorties completed during a specified date range.

b. This report displays data on the current status of aircraft assigned to the activity. It contains the dates of last flights, total outstanding NMC/PMC WOs with their status, assigned work centers, and material requisitions (with assigned DDSNs).

10.8.4 Work Center Workload Report

a. The Work Center Workload Report can be generated from any VED and reflects all outstanding WOs, based on criteria the user selects, against aircraft or nonaircraft. Outstanding WOs include those with JC status awaiting Maintenance Control approval.

b. This report is an excellent tool for the Work Center Supervisor to manage work center workload and should be printed prior to each shift for contingency operation. By keeping notes, updating status, and annotating this report, the Work Center Supervisor has the ability to set work load priorities should the system experience a down period.

10.8.5 Aircraft/Equipment Workload Report

The Aircraft/Equipment Workload Report can be generated from any VED and should be printed prior to each shift for contingency operation. The Aircraft/Equipment Workload dialog box enables the user to generate a listing of all active WOs for all or a specific aircraft, SE, ALSS, or MME.

10.8.6 Aircraft Material Status Report

The Aircraft Material Status Report is only generated from the Aircraft VED. The Aircraft Material Status dialog box enables the user to generate a listing for all or a specific aircraft material requisitions, their types, status, sort, and application. The report may include all or a selected work center.

10.8.7 Inspection by Assembly Code Report

The Inspection by Assy Cd Report can be generated from any VED. The Inspections by Assy Cd dialog box enables the user to generate a list of inspections that have been established for a specific aircraft, SE, ALSS, or MME Assy Cd. It shows the interval codes, inspection names, and intervals derived from the aircraft's MRCs.

10.8.8 Scheduled Inspections Report

The Scheduled Inspections Report can be generated from any VED. The Scheduled Inspections dialog box enables the user to generate a list of scheduled inspections for all or specific aircraft, SE, ALSS, or MME. The report displays information on the inspection, its interval code, interval, description, due time/date, and how much time remains on a given inspection.

10.8.9 Work Order Audit Trail Report

The Work Order Audit Trail Report can be generated from any VED. The Work Order Audit Trail dialog box enables the user to generate an audit report containing a list of WOs that were deleted from the data base. It also enables the user to print the WO for a specific MCN that belongs to a specific VED. It contains the MCNs and reasons for deletion.

10.8.10 Maint Reports

- a. Consolidated Performance Metrics (MAINT-1 Report) (Chapter 3, paragraph 3.7.1).
- b. Aircraft Readiness Degradation and Utilization Summary (MAINT-2 Report) (Chapter 3, paragraph 3.7.2).
- c. Subsystem Capability Impact Reporting by WUC/UNS (MAINT-3 Report) (Chapter 3, paragraph 3.7.3).
- d. Detailed Mission and Maintenance Data by Aircraft (MAINT-4 Report) (Chapter 3, paragraph 3.7.4).
- e. Maintenance Manhours (MAINT-5 Report) (Chapter 3, paragraph 3.7.5).
- f. Detailed Data Extract (MAINT-6 Report) (Chapter 3, paragraph 3.7.6).

NOTE: Local reports from Foundation Tier may not include detachment data or inventory corrections incorporated in up-line reporting.

10.8.11 Maintenance History Report

The Maintenance History window enables selection of one or more Modexes to generate the NALCOMIS OMA Maintenance History Report. The report reflects all WOs (active and historical) that can be retrieved to readily create special reports, for example, trend analysis, discrepancy, and corrective actions, on a given date/time frame.

10.9 Data Analysis

a. Purpose. Allows extraction, organization, and analysis of events requiring corrective action or merit command management attention. By this process, management is provided with facts as a basis for decision making. It is anticipated that some activities, depending on their mission or special circumstances, will require additional analysis, or analysis in greater depth. Continuous refinement of the data analysis process is essential to system improvement and is encouraged at all levels.

b. General Analysis Techniques. The various NTCSS Optimized OMA NALCOMIS reports consist of data listed or summarized in logical arrangements. To be of practical use to management, selected data must be assembled, studied, and suitably presented. The performance of these functions is called analysis.

c. Analysis Initiation. The requirements for analysis may stem from various sources and apply to a wide range of maintenance subjects. Analysis may be initiated to provide an answer to a specific problem or to study selected areas of maintenance and logistics, for example, manpower, productivity, reliability, maintainability, and readiness. An analysis based on clear, concise requirements is more likely to be meaningful and useful to the maintenance manager than one based on generalities.

d. Data Selection. Once the subject of the analysis has been identified, the analyst must determine the data needed to fulfill the requirement. Standard rules cannot be applied to this phase of analysis. The analyst must choose intelligently, ensuring all facts that have a bearing on the subject are included in the analysis. The analyst must also know the data source that will best provide the required data.

NOTE: Data retrieved from the Foundation Tier only reflects information applicable to equipment in physical custody of the reporting custodian, therefore, care must be taken to ensure all records pertinent to the scope of analysis are selected.

e. Data Examination. This process involves the detailed study, or examination, of the accumulated data. There is no restriction as to who may conduct an analysis. In many instances it is desirable that an analysis be completed in its entirety by a person technically qualified in the subject being analyzed, although this is not always possible. Identical results may often be obtained through teamwork. For example, personnel assigned to analysis may accumulate the required data, call in a representative from a work center to examine the data, and jointly prepare a commentary pertinent to the analysis. Likewise, a work center could accomplish many phases of the analysis, calling on the analyst only for selecting the parameters of the desired report. Regardless of who accomplishes the examination, the intent of the detailed study of the accumulated data is the same, (1) to determine if a problem actually exists, (2) to identify the factors contributing to the problem, (3) to list possible conclusions, and (4) to suggest possible alternative courses of action. Any decision or action based on the detailed study is the responsibility of maintenance managers. During the course of the examination, certain standards or other measuring criteria may be employed. Statistical formulas may also be used.

10.10 Maintenance Control Operating NTCSS Optimized OMA NALCOMIS

a. NTCSS Optimized OMA NALCOMIS significantly reduces the administrative burden and produces up-to-date status information necessary for the control of maintenance. Communication between Maintenance Control, work centers, Quality Assurance, and Material Control is essential to ensure successful operation. Each time a change of job status occurs, the work center supervisor shall immediately update the WO.

b. The maintenance manager is concerned with aircraft status, operational commitments, ALSS status, SE status, MME status, workload requirements, and personnel assets. Efficient operation requires a centralized control point through which all information concerning these areas must pass. In an O-level activity this central point is Maintenance Control.

c. NTCSS Optimized OMA NALCOMIS is a management tool that provides essential, real-time information on a continuing basis through online VED and reports. The system correlates aircraft status information, particularly NMCS/PMCS, flyable discrepancies, nonaircraft-related discrepancies, for example, ALSS status, SE status, MME status, and assigns a relative importance to each item. The ability to review the overall situation and determine the resources available, enables maintenance managers to carry out their duties more effectively and efficiently.

10.10.1 Operating Procedures

a. Maintenance Control must be in control of maintenance to ensure successful operation. Information shall flow expeditiously among Maintenance Control, Material Control, Quality Assurance, and the work center.

b. Maintenance Control shall:

(1) Monitor current aircraft/equipment status within [NTCSS](#) Optimized OMA NALCOMIS.

(2) Maintain cognizance of incomplete maintenance actions.

(3) Take actions necessary for reporting configuration, material readiness, and flight data.

(4) Brief pilots and aircrew prior to an FCF through the use of appropriate QA and work center personnel. The briefing shall describe the maintenance performed, the requirements for that particular flight, and the expected results.

c. Upon completion of the flight, the pilot/aircrew initiates a [WO](#) for each discrepancy. For discrepancies discovered by other than pilot or aircrew, the person who discovered the discrepancy will initiate the WO. In the case of WD Code O, Maintenance Control will initiate the WO. [NTCSS](#) Optimized OMA NALCOMIS prompts the user to complete required data fields during WO initiation. The JCN is automatically assigned when the WO is approved by Maintenance Control. The Type WO Code, [Assy Cd](#), BUNO, T/M, MODEX, received date, and received time are prefilled. The received date and time can be changed. Work center, discrepancy, initiator, WD code, and up/partial/down status field shall be filled in prior to saving to the data base. If the status is SCIR impacted, the correct WUC/UNS must be entered and the appropriate EOC code will be assigned. All other fields are optional.

d. Upon reviewing WOs, Maintenance Control has the option to modify all fields of the [WO](#) except BUNO, [Assy Cd](#), and TM. Upon approval, the WO is automatically populated into the [AADB](#) and Work Center Workload Report.

e. When corrective action has been completed, Maintenance Control reviews, approves, or rejects the corrective action block of the [WO](#). Upon approval of the completed WO, [NTCSS](#) Optimized OMA NALCOMIS automatically updates the [AADB](#), where it shall remain for 10 subsequent flights following the completion date. The [ALS](#) administrator will review completed WOs to ensure ALS entries are complete.

f. When parts or materials are required, the Maintenance Control Supervisor will assign the appropriate project code and priority designator on the [WO](#) using the project/priority assignment online process. The Material Request is electronically forwarded to Material Control's online DDSN assignment process. The DOD 4140.1-R provides proper application of priority designators and NAVSUP Publication 485 for project codes.

g. Repair documentation:

(1) Received. System automatically defaults to system date/time upon initiation. The initiator has the capability to modify prefilled date/time prior to Maintenance Control approval.

(2) In Work. System assigns prefilled date/time upon assignment of worker. This field is modifiable.

(3) Awaiting parts. AWP status requires an open supply requisition and the absence of In Work status. Once a part is received the default job status will be M3.

(4) Completed. The job status code of JC and date/time are automatically applied when the CDI/QA signs Inspected by block. This field is modifiable. The computer displays the current system time as the completion date/time, but also provides a pop-up window that advises the CDI as to the earliest completion date/time that the WO can be modified to. The date and time will not be able to be backdated prior to the last job status on the WO or the date/time on the Removed/Installed records, whichever is later.

h. Maintain an AADB for each aircraft assigned. The AADB is designed to provide maintenance and aircrew personnel with an accurate, comprehensive, and chronological record of flights and maintenance performed on a specific aircraft by BUNO for 10 flights. Aircrew, ground crew, and fix phase discrepancies shall be displayed in the AADB. For phase or special inspections only the control document, representing look phase actions, are displayed in the AADB. The AADB shall accurately reflect the status of pending maintenance requirements as displayed in the NTCSS Optimized OMA NALCOMIS data base. The AADB for each specific BUNO shall be screened for accuracy of completed and outstanding WOs before Maintenance Control certifies the aircraft safe for flight.

NOTES: 1. When a special inspection is completed, the control document will be retained in the AADB until completion of the next like special inspection.

2. Equipment Discrepancy Books for AMCM equipment will be maintained by the AMCM Systems Maintenance Department Maintenance Control using the instructions for AADBs.

3. WOs will be separated by flights.

10.10.2 Phase Maintenance Procedures

a. When an aircraft is inducted into a phase inspection, Maintenance Control and the inspection supervisor shall ensure all WOs are properly entered into NTCSS Optimized OMA NALCOMIS, for example, work center change, FCF compliance, and QA required.

b. Cannibalization actions will be authorized and directed by Maintenance Control.

10.10.3 Work Order History

Completed historical WOs will be stored in the local data base for a minimum of 12 months from completion date. Users have the ability to view ADW data for up to 5 years. Historical WOs are attached to aircraft/equipment by BUNO/SERNO and are automatically transferred with aircraft data base.

10.11 Work Order Documentation Procedures

The purpose of this section is to provide detailed procedures to be used in documenting maintenance actions on WOs. The WO is used to document, in addition to on-equipment maintenance actions, the removal and subsequent processing of a repairable component or item to an IMA.

10.11.1 Types of Maintenance Actions

WOs will be used to document the following types of maintenance actions.

a. On-equipment work not involving removal of defective or suspected defective repairable.

b. Look phase of acceptance, transfer, special, conditional, major aircraft and special inspections and corrosion, preservation and depreservation.

- c. Fix phase actions discovered during inspection.
- d. Removal of components for check/test/service actions.
- e. Removal and replacement actions for cannibalization.
- f. Accumulated man-hours as a result of work stoppage for parts or maintenance.
- g. Maintenance actions and man-hours by the assisting work center in support of a primary work center.
- h. Support of a repairable item processing through the IMA.
- i. Incorporation of TDs and associated maintenance actions.
- j. Collection of SCIR data.
- k. Removal and replacement of repairable components in end items.
- l. Removal or installation of components for mission configuration changes.
- m. Record of ordering and issue of repairable components, subassemblies, and parts.
- n. Troubleshooting man-hours.
- o. Accumulated man-hours on jobs not completed due to an aircraft mishap.
- p. Documentation of preservation and depreservation.
- q. Documentation of O-level and I-level functions supporting D-level maintenance actions.

10.11.2 Data Field Dictionary

a. This section describes the data elements used in documenting maintenance actions on the [WO](#). The codes used to describe the data on this record are found in the appendices of this volume. Specific data blocks to be used and data block requirements are controlled by the aviation 3M MDS VALSPEC Guide (A7257-01) (<https://www.nalda.navy.mil/valspec/>).

b. Refer to paragraphs 10.13 through 10.17 for specific data element application and requirements.

(1) Action Taken. Enter the one-character alpha or numeric code that describes the action taken. This code describes the action performed on the item identified by the WUC/UNS. AT codes are in Appendix E.

NOTE: The TD status code is a single-character alpha code used to indicate the compliance status of a TD. This code is entered in the action taken field of the [WO](#) when reporting TD status. These codes are in Appendix J.

(2) Assy Cd. Enter or select the four-character Assy Cd that describes the end item on which work is being performed.

(3) BUNO/SERNO. Prefilled or enter for hosting activity. It is the BU/SERNO of the equipment or end item on which work is being performed. If more than six digits, enter the last six. If less than six digits, prefix with sufficient zeros to total six characters. In cases of on-equipment work at the O-level for personal

survival equipment, enter the first letter of the aircrewman's first and last name and the last four digits of the SSN.

(4) CF Req. The O-level activity will select if a check flight is required after completion of the maintenance action.

(5) Completed Date/Time. Day (DD) Month (MMM) Year (YYYY) Time (TTTT).

(6) Corrected By. The name and rate of the worker assigned to the maintenance action.

(7) Corrective Action. Enter a narrative description of the action taken to correct the discrepancy.

(8) Current Job Status. A two-character code used to describe the status of a specific task (Appendix N).

(9) Disc Code. Prefilled based on Type [WO](#) Code or select from the drop down menu. The WD code is a plain language or single alpha-character that identifies when the need for maintenance was discovered. The three sets of WD codes that cover the equipment categories are (1) aircraft and engines; (2) SE, PME, and expeditionary airfield; and (3) missiles/missile targets. Definitions and explanations of these codes are in Appendix R.

(10) Discrepancy. Enter a narrative description of the reported discrepancy.

(11) Elapsed Hrs. Auto calculated on the [WO](#), the number of clock hours involved in making the repair (in hours and tenths).

(12) EOC. Prefilled based on the U/P/D indicator and WUC/UNS selection. An EOC code describes the degradation of the aircraft's mission capability.

(13) Fid. Leave blank, reserved for future use.

(14) H-Z Failed/Required Material. This section will be used to document a failed part without an AWP situation, a failed part and an AWP situation occurring simultaneously, an AWP situation without a failed part, and a supply request only with no failed part or AWP situation. A failed part and an AWP situation occurring simultaneously and an AWP situation without a failed part will only be documented at IMAs. A supply request will not have an index letter. This section will also be used for engine identification and subsequent failed parts reported against the identified engine, for example, repairable components that are an integral part of the basic engine (excluding propellers but including the T56/T76 gear box) or receive their primary source of power from the basic engine.

(a) Index. Letters H - Z. The letters represent a specific record type to be extracted from the [WO](#) for failed parts, AWP, and engine identification reporting. Index letters H - Z shall be assigned automatically in alphabetical order. This allows the 19 most significant failed parts to be reported against a specific maintenance action, for example, assignment of index H indicates the first failed part record, Z indicates the last and 19th failed parts record against the maintenance action. The purpose of this block is to flag engineering data items only, not supply usage data. Therefore, only significant failed parts will be annotated in this block, such as those items which are known or suspected to have contributed to the discrepancy reported in the discrepancy block of the WO. There is no limit to requisitioning parts.

(b) Failed/Part. Enter a Yes (Y) or No (N) to denote a failed part if the failed material or parts replaced during the repair are piece parts that have failed in a major component. Common hardware, nuts,

screws, safety wire, seals, gaskets, washers, fittings, etc., routinely replaced during a maintenance action will be documented only if their failure is known or suspected to have contributed to the discrepancy.

NOTE: PEB items, such as common hardware, nuts, bolts, screws, safety wire, seals, gaskets, fittings, and washers, routinely replaced during a maintenance action that DID NOT contribute to the discrepancy, will be listed for material ordering purposes only. Data blocks Index, Failed Part, AT Code, and MAL Code will be left blank. Do not document items available in the PEB, only those items that are not in stock for material ordering purposes, unless PEB items caused the failure or were suspected of contributing to the discrepancy.

(c) Action Taken. Enter the one-character alpha or numeric code or select the plain language AT code description, which describes the action taken against the removed module, subassemblies, or significant failed parts required. AT codes are listed in Appendix E. For engine identification, enter O for installed, P for uninstalled, or S for removal and reinstallation.

(d) MAL Code. Enter or select the three-character alphanumeric code used to describe the malfunction that caused the maintenance action on the item described by the WUC/UNS. MAL description codes are contained in Appendix I.

(e) CAGE. Enter or select the CAGE of failed part or required material. For engine identification, enter the engine Assy Cd followed by the numeric digit indicating the engine position.

(f) Part Number. Enter or select the manufacturer's P/N of the failed or required material. For engine identification, the engine SERNO and the engine time (prefixed with an E) are auto prefilled based upon selection of the WUC/UNS. Use time since overhaul (if known) otherwise use time since new (whole hours only).

(g) Quantity. Enter the quantity of failed or required material (1 to 99). For engine identification, enter 0.

(h) Proj. Enter or select project code (as applicable).

(i) Pri. MILSTRIP priority assigned to the material requisition. This field is linked to project code.

(j) Rpr Ind. This is automated based on WUC/UNS CM baseline. Y indicates a repairable.

(k) Order Date. The Day (DD) Month (MMM) Year (YYYY) Time (TTTT) the material was requisitioned. This is auto-filled upon Material Control approval.

(l) DDSN. MILSTRIP requisition number of the material required completing the maintenance action. This is auto-filled upon Material Control approval.

(m) Received Date. The Day (DD) Month (MMM) Year (YYYY) and Time (TTTT) that requisitioned material is received.

(n) Status. An eight position alphanumeric field consisting of a three position Julian date and a five position status.

(o) Reference. Enter the supply reference to aid the Material Control Division in requisitioning the failed or required material.

(15) In Process. Documented in-process inspections are indicated with a Y.

(16) In Work Date/Time. Day (DD) Month (MMM) Year (YYYY) Time (TTTT).

(17) Initiated By. System prefilled by log-in identification, field is modifiable. The name and rank/rate of originator of the discrepancy is printed in this block.

(18) Inspected By. The name and rate of the QAR or CDI who inspects the job for proper standards and certifies the accuracy of the **WO** is entered in this block. Maintenance Control can sign off inspection control documents.

NOTE: No further **WO modification is allowed after CDI signature is applied to the inspected by field.**

(19) Items Process. Enter the number of times that an action, indicated by an AT code, is applied to the item identified by the WUC/UNS recorded on a **WO**. Items processed will be 0 for any look phase inspection **WO**.

(20) JCN. The JCN is a nine-character alphanumeric code that serves as the basis for NALCOMIS Data Collection System and Maintenance Control procedures. The JCN allows identification of each maintenance action and provides a link with the maintenance actions performed by the IMA in support of an activity or an O-level maintenance discrepancy. The JCN is composed of three parts:

(a) ORG. This is a three-character alphanumeric code that identifies an organization. It is used in the JCN to identify the organization that originally assigned the JCN to a maintenance action, except that in the case of transient aircraft maintenance, the JCN will contain the organization code of the aircraft-reporting custodian. The general format and structure of ORG codes is described in Appendix Q. A complete listing of ORG codes may be found in the Organization Code Listing (A7065-01) (<https://www.nalda.navy.mil/>).

(b) DAY. This is the three-character part of the Julian date specifying the day of the year. This is the date the JCN was assigned to a maintenance action and does not necessarily reflect the date on which work was actually started.

(c) SER. The SERNO is either a three-character numeric number that runs sequentially or a three-character alphanumeric number. The three-character numeric number is normally assigned in sequence as new jobs are initiated, for example, 001 and 002. After 599, the next number in sequence will be 001. Alphanumeric serial numbers are used only when documenting inspections other than turnaround, daily, special, conditional, corrosion, and acceptance/transfers. Alphanumeric JCN structure for phase, **IMC/P**, or **SDLM** inspections will be assigned as follows:

<u>LOOK</u>	<u>FIX</u>
<u>A00</u>	<u>A01 through A99</u>
<u>through</u>	
<u>Z00</u>	<u>Z01 through Z99</u>
<u>to</u>	
<u>AA0</u>	<u>AA1 through AA9 through AAA through AAZ</u>
<u>through</u>	
<u>ZZ0</u>	<u>ZZ1 through ZZ9 through ZZA through ZZZ.</u>

NOTE: For sub-custody SE in the custody of another department that requires repair by the AIMD, the JCN will be assigned by the AIMD Production Control, reflecting the AIMD organization code.

- (21) Local Use. This block may be used as desired.
- (22) Log-set.
- (a) Maintenance Control may select [ALS](#) block required.
- (b) The entry is automated for items that have tasks in CM.
- (23) Maint Control. The name and rate of the individual approving the corrective action.
- (24) MAL Code. Select the plain language description or enter the three-digit code that best describes the malfunction occurring on or in an item identified by a WUC. MAL codes are listed in Appendix I. For engine identification, enter 000. MAL code will be blank for TD documentation.
- (25) Man-Hrs. Auto calculated on the [WO](#), the number of man-hours that were expended to correct the discrepancy (in hours and tenths).
- (26) MCN. The MCN is a seven-character alphanumeric code assigned by the system that is the basis for NALCOMIS Data Collection System Maintenance Control procedures. The MCN is used in [NTCSS](#) Optimized OMA NALCOMIS while querying the data base and tracking the [WO](#) through the maintenance process.
- (27) Meter. This block is mandatory when [Assy Cd](#) for on-equipment work is G, H, or S and maintenance level is 1.
- (28) M/L. Select or enter the level of maintenance (1 through 6) which is performed (not necessarily the level assigned to the activity).
- (29) Modex. (Prefilled). Enter or select the side number (Modex) of aircraft or leave blank for SE.
- (30) Org Code. (Prefilled). The organization accomplishing the work. ORG codes are listed in the Organization Code Translator (A7065-01) (<https://www.nalda.navy.mil/>).
- (31) Posit. Auto-filled based on the WUC/UNS selected.
- (32) QA Req. The O-level activity will select if a maintenance action requires a QAR inspection. (Not applicable to CDI inspections.)
- (33) Received Date/Time. Prefilled or enter the Day (DD) Month (MMM) Year (YYYY) Time (TTTT).
- (34) Removed/Old Item or Installed/New Item. CAGE, SERNO, P/N, Date Removed or Installed, CDI Signature. These blocks are completed on the [WO](#) when a repairable component is removed or installed from/on the end item or major component on which work is being performed. Enter or select the CAGE code, SERNO, and P/N or lot number for the CARTs, CADs, or AEPS device. DATE Removed or Installed block enter Day (DD) Month (MMM) Year (YYYY) the repairable component is removed or installed from/on the equipment. CDI verifies the accuracy of the fields prior to signing.
- (35) Safety EI. Enter the locally assigned four-digit control number from the NAMDRP RCN.
- (36) System Reason. Enter short description of the discrepancy or two-digit system code.

(37) Tech. Enter an N for all maintenance actions involving ETS support.

(38) TD Identification. All TD information is inputted via the baseline manager and, upon initiation of a TD WO, all TD information is auto-filled from the CM/Baseline tables. TD Identification is divided into seven sections as follows:

(a) Interim Cd. X indicates an interim TD; otherwise blank.

(b) Code. A two-character numeric code that denotes the type of directive being incorporated. TD codes are in Appendix L.

(c) Basic No. A four-character numeric code identifying the basic TD preceded by zero(s) to complete the field.

(d) Rev ltr. A one-character alpha code that denotes the specific revision of the basic TD. Blank if not applicable.

(e) Amend. A one-character numeric amendment number of the basic TD. Blank if not applicable.

(f) Part. A two-character numeric part number listed in the TD. Blank if not applicable.

(g) Kit No. A two-character alphanumeric number of the specific TD kit incorporated. If no kit is required, 00 will be in this section.

(39) Trans code. Plain language description of the code or a two-character numeric TRCODE used to identify the type of data being reported (Appendix P).

(40) Turn-In MCN. Prefilled MCN on specific item removed for processing to the IMA. Used to assist local supply control.

(41) Type Maintenance. Prefilled based on Type WO Code selected. Plain language or a one-character alpha or numeric code used to describe the type of work being accomplished. For example, scheduled, unscheduled, and supply support actions (Appendix H).

(42) Type WO. Enter or select, from the drop down, a two-character code that describes the type of work/task to be performed (Appendix U).

(43) U/D/P Cd. Select as appropriate (Up, Down, Partial) to indicate end item status.

(44) WO Update Job Status/Worker Hours.

(a) Accumulated AWM Hours. The calculation of AWM hours is automated. There is no AWM Block.

(b) Job Status History. JS history of the WO from start to finish. STATUS – A two-character code used to determine the status of a specific task. DATE (DD) MONTH (MMM) YEAR (YYYY) TIME (TTTT).

(c) Worker Hours. Enter last name of worker and tool box assigned to the task. Upon return to the work center the CDI/Supervisor/QA shall conduct a sight inventory of the tool container(s) and verify

Tool Control Program requirements have been complied with. If no tools are required, enter NTR. Start date/time - enter the beginning of the worker start date/time. Day (DD) Month (MMM) Year (YYYY) Time (TTTT) and end date/time - enter the end date time of the worker end task Day (DD) Month (MMM) Year (YYYY) Time (TTTT). CDI BLOCK. CDI/Supervisor/QA initials are entered here.

NOTES: 1. A worker cannot be in work on more than one WO at a time.

2. CDIs may account for man-hours expended while performing on equipment inspections. If no tools were used to perform inspection, the CDI will enter CDISUP in the toolbox block. CDI initials are not required. Work center supervisors may also account for man-hour expenditure involving research and ordering parts, using the same procedures as above.

(d) Current Job Status – Displays the current job status of the WO in the following format: status, date, time, and EOC code.

(e) Inspection SCIR Impact. If an inspection is initiated in an Up status and then reaches its maximum allowable deviation (drop dead date), the NALCOMIS system has an auto-down program which will automatically change the status of the inspection WOs to a Down status. Until such time as Maintenance Control decides to SCIR Impact the inspection by selecting the SCIR Impacted Insp option from the Aircraft VED, the aircraft inspection WOs will not have an EOC displayed. Once SCIR Impacted, an EOC of “Y” is placed on the Control WO, and an EOC of “Z” is placed on the Look Phase WOs. This action cannot be reversed. The EOC Start Date/Time field will be displayed on the Job Status/Worker Hours screen with the date/time of when the SCIR Impact option was initiated and display the EOC of “Z”. This field will be used to start the SCIR clock, and the MAINT-1, MAINT-2, and MAINT-3 reports will calculate the aircraft readiness using this field.

(45) Work Center. Defaults to the work center of the initiator, but is modifiable. If needed, select from the drop down the applicable work center the discrepancy is assigned to (Appendix S).

(46) WUC/UNS. Select or enter the WUC/UNS that identifies the system, subsystem, or component on which work is being performed.

10.12 Aircraft Inventory Reporting System

CM ALS and DBAs will read and become familiar with the contents of this section, OPNAVINST 5442.2, and OPNAVINST 5442.4. Inventory accountability is accomplished through XRAY reporting in the CM module. XRAY date/time will reflect 1 minute later than transfer date/time.

10.12.1 Subsystem Capability and Impact Reporting System

The SCIR System is used to monitor mission capability of selected systems/subsystems. SCIR will be documented on the WO concurrently with the maintenance action that caused the reduction of the equipment's mission capability. This system provides managers with the degree of mission impairment, the length of time the equipment's capability was reduced, the system/subsystem that caused mission impairment, and maintenance/supply impact on equipment capability.

10.12.2 Equipment Operational Capability Codes

a. An EOC code is a one alpha-character code designed to describe the severity level of SCIR maintenance actions. The EOC code is linked to the WUC/UNS in the CM baseline. EOC is prefilled based on the U/P/D indicator and WUC/UNS selection. Only one EOC can be documented on a WO. When

required, the EOC is documented on the Single Work Center Inspection WO, or the Look Phase WOs for inspections requiring more than one work center.

b. Each T/M/S aircraft under SCIR has an EOC code list, called a MESM. MESMs are published by CNO in OPNAVINST 5442.4.

10.12.3 Mission Capability

Maintenance actions impacting mission capability of the end item are considered to be SCIR related. Mission capability is impacted whenever a system or subsystem listed in the MESM cannot be used for its intended function. Sometimes only the function is listed in the MESM. A subsystem is considered nonfunctional even though the final disposition may be no defect (A-799). Sometimes a discrepancy report will imply the subsystem is functional but troubleshooting proves it was not. In these cases, mission capability is considered impacted from the time the discrepancy was reported.

10.12.4 Subsystem Capability Impact Reporting Application

a. SCIR is applicable to all on-equipment work on end items having a MESM and is documented automatically based upon the U/D/P status indicator and the user selected WUC/UNS in [NTCSS](#) Optimized OMA NALCOMIS whenever mission capability is impacted.

b. SCIR is applicable when mission capability is impaired while:

- (1) Repairing an end item.
- (2) Inspecting an end item.
- (3) Installing a TD on an end item.
- (4) Removing a component from an end item for repair, modification, or calibration.

c. SCIR is not documented:

- (1) On end items not having a MESM.
- (2) When performing off-equipment work.
- (3) When the maintenance action or discrepancy does not impair mission capability of the aircraft.

10.12.5 Change of Equipment Operational Capability Code

The decision to change a SCIR status shall be made by Maintenance Control. To change an EOC code, use the SCIR change function within the [WO](#). The SCIR change function is used for those non-SCIR discrepancies that increase in severity. When executing the SCIR Change Option, the computer will closeout the original WO and creates a new WO with the appropriate new EOC. The original WO must contain sufficient information to pass the OOMA on-line validations prior to the SCIR change. The new WO will have the same JCN as the original WO, but it will have a new MCN along with the new SCIR Code. The date/time received will be computer generated at the time of the SCIR change and is not modifiable. This option will be used to change a discrepancy from Up to Partial or Down, and to change Partial to Down. This feature is not used to change the SCIR status for Look Phase Inspection WOs.

NOTES: 1. This procedure replaces EOC Code A functionality.

2. EOC Codes A and B are not used in NTCSS Optimized OMA NALCOMIS.

10.12.6 Subsystem Capability Impact Reporting Corrections

a. Maintenance Control can make SCIR corrections to most WOs.

NOTE: All SCIR corrections change the new SCIR status back to the received date/time of the WO.

b. A SCIR correction to a Down status is prohibited if an M7 job status exists or if the aircraft has flown since the received date/time.

c. If the WO is being corrected to an Up or Partial status and parts have been ordered, the user is stopped if the project code is not valid for the new status.

d. If the WO is corrected to Partial status, the WUC/UNS must be selected from the MESM table. If there is more than one EOC Code for that WUC, the user is prompted to select one.

e. Inspection WO cannot be changed from a down to up status. Look phase inspection WOs cannot be changed from an up to down status (it must be done on the inspection control WO).

10.13 Aircraft Maintenance Documentation

The following paragraphs provide definitions of the various maintenance actions that shall be documented. Each maintenance action described below is initiated using a specific type WO code. Type WO codes are designed to auto-fill WO data fields with the correct information per NAMP policy and aviation 3M MDS VALSPEC Guide (A7257-01) (<https://www.nalda.navy.mil/valspec/>). If an improper code is selected for a field not auto-filled, the on-line validation specifications pop-up window appears with the proper code(s) for that data field or reference to the appropriate appendix.

10.13.1 Aircraft Repair

a. Troubleshooting.

(1) Type WO code: TS - Troubleshooting.

(2) This time will be documented separately when the time expended in isolating a discrepancy is considered to be great enough to warrant separating the troubleshooting time from the repair time. Separating troubleshooting time requires completion of two WOs, one for the troubleshooting phase and one for the repair phase. When recording the troubleshooting time separately from the repair time, the total time taken to isolate the primary cause of the discrepancy is recorded on a separate WO using the system, subsystem, or assembly WUC (as appropriate).

b. On-equipment Removal and Replacement of Repairable Components.

(1) Type WO code: DM - Discrepancy Maintenance.

(2) A WO is used to document the removal and replacement of repairable components while performing on-equipment repair.

c. On-equipment Repair with no Replacement of a Repairable Component.

(1) Type WO code: DM - Discrepancy Maintenance.

(2) Completed per paragraph 10.11.2.

d. Turn-In of a Repairable and Locally Repaired Consumable.

(1) No Type WO code assigned.

(2) A WO is used to document the removal and subsequent IMA processing of a repairable component. These procedures will also apply to consumable components that are inducted into an IMA for repair. The WO will be completed per paragraph 10.11.2 except as noted below, even though the removal, repair and reinstallation of a component occurs within a single work center.

(a) If an item is still under warranty at the time of failure, ensure that CM ALS records indicate removal of a warranty item and the contract number.

(b) All ALSS turn-ins will be delivered directly to the ALSS pool. Requisition and turn-in procedures for ALSS assemblies and repair parts shall be as established in this instruction, the OMA-UG/Online Help.

e. Receipt of Unsatisfactory Material from Supply.

(1) Type WO code: DM - Discrepancy Maintenance.

(2) Components Received Non-RFI and Not Installed or Improper Replacement Received. If non-RFI before installation or an improper replacement is received, notify Material Control. The original WO remains outstanding and the non-RFI component will be turned in on a DOD Single Line Item Release Receipt Document (DD 1348-1) prepared by Material Control. Ensure all accompanying documentation, for example, RFI tag, CM ALS record, and WO, are returned with all items. CM ALS records will be returned to Supply via the CM Group Explorer.

(3) Components Received Non-RFI and Installed. Complete the original WO. Initiate a new WO with a new JCN. A replacement component is requisitioned using the new WO and a new WO turn-in document will be automatically created to accompany the non-RFI component to the IMA.

(4) The WO will be completed per paragraph 10.11.2 except WD must be Y.

f. Component Received Missing Records.

(1) Type WO code: DM - Discrepancy Maintenance.

(2) Components, assemblies, or equipment received from supply missing CM ALS MSRs, AESRs, or component life limited record shall be considered as non-RFI and turned in on a DOD Single Line Item Release Receipt Document (DD 1348-1) prepared by Material Control. If the component is installed and cannot be determined to be new or newly overhauled, it shall be considered faulty.

NOTES: 1. If it can be determined that the component is in fact new or newly overhauled, a CM ALS record will be created upon receipt by the requisitioning activity prior to installation.
2. If a record is missing or not received, contact the COMNAVAIRSYSCOM Wholesale Foundation Tier for reconstruction of information/data or to have the latest record sent to the activity.
3. For missing paper records refer to procedures contained in Volume I.

g. Cannibalization.

(1) Type WO code: CM - Cannibalization Maintenance.

(2) Cannibalize order must come from Maintenance Control. Maintenance Control will authorize the aircraft, engine, or SE to be cannibalized and generate a MCN for the removal and replacement of the component being cannibalized. The procedures listed in this paragraph apply to all cannibalizations from end items, for example, aircraft, engine, and SE. Egress system related cartridges, CADs, and AEPs will not be cannibalized without prior cognizant Type Wing (ashore) or CVW (afloat) approval. Personnel parachutes, drogue parachutes, and RSSKs are excluded from this policy. The removal/installation of items for cannibalization will be documented on one WO. Cannibalization of consumable parts using the Consumable Cannibalization Wizard shall not require the documenting of the removal/installation blocks.

NOTE: Maintenance Control directs the cannibalization action using the automated cannibalization wizard.

h. Matched Set.

(1) Type WO code: DM - Discrepancy Maintenance.

(2) Document maintenance actions on components removed as a matched set, for processing at the IMA, for example, ASA-13A and APN-22/117, as follows:

(a) Each component is removed on a separate WO.

(b) Each component must have a separate JCN assigned by Maintenance Control.

(c) Each component within a matched set that must be removed during a maintenance action will be assigned the same MAL code that describes the system defect.

(d) In addition to the brief narrative, a statement will be added to the Discrepancy block, such as, "Matched Set, See JCN ____".

(e) An additional WO turn-in control document is initiated for each component. The turn-in document accompanies the component for processing.

(3) The Matched Set (Component 1) and (Component 2) WO is completed per paragraph 10.11.2 except as noted below:

(a) Enter or select the failed parts and record supply requisitions (if applicable) in Material Required.

(b) The MAL code must be the same for all components of a matched set at the O-level.

(c) Enter or select from CM the appropriate data for the removed and the installed item.

i. Assisting Work Center.

(1) Type WO code: AD - Assist Maintenance.

(2) When it is necessary for another work center to assist the primary work center assigned to a maintenance action, an assist WO will be approved by Maintenance Control. These procedures do not apply to look phase inspections, the removal and reinstallation to FOM, or cannibalization.

j. FOM Action.

(1) Type WO code: FO - Facilitate Other Maintenance.

(2) A FOM action is the removal and subsequent reinstallation of an RFI engine or component from an end item in support of, or to permit access to, another maintenance action on the same end item. The component removed is not identified in the Removed or Installed item block of the FOM WO. When a component has been removed, note the serial number (if any) in the "local use" block for reference when the item is reinstalled. This notation will provide positive accountability of serialized RFI components removed to FOM.

k. Aircraft Transfer or Strike.

(1) Type WO code: Use existing WO code assigned.

(2) When an aircraft is involved in a strike, all outstanding maintenance actions for the affected aircraft will be closed out. For transfer aircraft, all outstanding maintenance actions will be closed out by the system and reinitiated by the receiving activity using the date and time recorded on the aircraft acceptance XRAY (AIRRS).

NOTE: Activities with CM ALS records must coordinate with the Supply Department and AIMD to ensure integrity of CM ALS records.

l. Hosting Activity/Transient Maintenance.

(1) Type WO codes: HA - Hosting Activity and TM - Transient Maintenance.

(2) Maintenance actions completed on transient aircraft are documented using the hosting activity WO code by the activity actually performing the transient maintenance. The activity performing transient maintenance shall provide the aircraft reporting custodian with documentation necessary to report all maintenance actions and to update CM ALS records.

(3) The reporting custodian of an aircraft receiving transient maintenance shall, upon receipt of applicable records, update CM ALS records, report maintenance actions, and submit the completed maintenance action using the Transient Maintenance WO code.

NOTE: In the absence of designated QA expertise during transient maintenance, the pilot in command is authorized to either sign as inspector or designate a qualified member of the aircrew to function in this capacity. The pilot or designee will inspect the work performed from a technical standpoint to the best of their ability to ensure sound maintenance procedures were followed and areas where maintenance was performed are free from foreign objects. In the event the discrepancy involves flight safety, a QAR shall re-inspect the repairs upon return to home base. For Maintenance Control Signature, enter the appropriate signature and rate/rank of the Maintenance Control supervisor or designated representative.

(4) The host activity will not document SCIR on transient aircraft.

m. In-Flight Maintenance.

(1) Type WO code: DM - Discrepancy Maintenance.

(2) In-flight maintenance is documented on a WO. In the absence of designated QA personnel during in-flight maintenance, the senior aircrew maintenance person is authorized to sign as inspector. This

person shall inspect the work performed from a technical standpoint, to the best of their ability, to ensure sound maintenance procedures and practices were followed and areas where maintenance was performed are free of foreign objects.

(3) The [WO](#) will be completed per paragraph 10.11.2 except work center must be X20.

NOTE: In the event a flight safety discrepancy is repaired while airborne, a designated QAR shall inspect the repairs after return to home base. This is in addition to the above inspection requirement.

n. Away From Home Maintenance.

(1) Multi-Type [WO](#) codes can apply.

(2) Most organizations occasionally deploy single aircraft or small units away from the parent organization for short periods of time, for example, hurricane evacuation, cross-country flight, and rocket and gunnery training. If maintenance personnel are deployed with the aircraft, all maintenance actions accomplished while deployed are documented against Work Center X30 (Appendix S) or the parent work center.

o. Components Authorized to be removed Prior to Induction into Standard Rework.

(1) Type [WO](#) code: DM - Discrepancy Maintenance.

(2) Components authorized to be removed and retained by the squadron will be documented on a [WO](#) using TR Code 16, Malfunction Code 805, and AT Code P. Prior to reinstallation, those components should be inducted into IMA for check, test, or service using a work request per paragraph 10.16. Components authorized to be removed from aircraft for pool stock will be processed to the IMA using AT Code P and Malfunction Code 805. Components, when installed, will be documented on a [WO](#) using TR Code 17, Malfunction Code 805, and AT Code Q.

p. Aircraft CARTs, CADs, and AEPS.

(1) Type [WO](#) code: DM - Discrepancy Maintenance.

(2) Replacement of aircraft installed explosive devices requires an individual [WO](#) for removal and replacement of each device.

(3) The [WO](#) will be completed per paragraph 10.11.2 for scheduled removals use Transaction Code 18, AT Code R, and Malfunction Code 804.

q. Intra-Activity Support [WO](#).

(1) Type [WO](#) code: IA - Intra-Activity Support.

(2) This procedure allows documentation for local manufacture of material to support ALSS equipment, nonaeronautical equipment, or aircraft equipment not currently identified by a WUC. It does not replace assist [WO](#) procedures, which assist a primary repair action or work request for work that is beyond an activity's capabilities.

r. Corrosion (Aircraft and Aeronautical Equipment).

(1) Type [WO](#) codes: CP - Corrosion Prevention and CT - Corrosion Treatment.

(2) Corrosion prevention and treatment of aircraft and aeronautical equipment is performed as part of a scheduled maintenance requirement or as an unscheduled maintenance action.

(3) Corrosion prevention requirements found while complying with MRCs (scheduled maintenance) will be documented on the inspection look phase WO. This includes aircraft washing performed as part of a scheduled inspection.

(4) Corrosion treatment requirements found during the look phase of an inspection will be documented on a fix phase WO. The treatment of bare metal is included in this category.

(5) Unscheduled corrosion prevention is documented on the WO, only when the elapsed maintenance time exceeds one-half man-hour. Unscheduled aircraft cleaning and temporary repairs of bare metal are included in this category. Multiple items processed may be documented.

(6) Unscheduled corrosion treatment actions are documented on the WO.

s. Reconfiguration (Aircraft and SE).

(1) Type WO code: DM - Discrepancy Maintenance.

(2) The installation or removal of equipment required to reconfigure an aircraft or item of SE to perform a new or different mission tasking than last performed shall be documented on a WO. It includes, but is not limited to, equipment identified as mission mounted equipment in Appendix Q. It does not include materials which are consumed, expended, or undergo changes in their physical properties during use. Mission mounted equipment may exhibit one or more of the following characteristics:

(a) Installation or removal generally takes longer than a typical turnaround cycle.

(b) Installation requires electrical, electronic, hydraulic, or mechanical checks to ensure functionality.

(c) Classified as repairable or contains repairable components.

(d) Requires supplemental records, such as CM ALS records.

(e) Periodic maintenance intervals have been established.

(f) Once installed, equipment is likely to remain installed for extended periods of time.

10.13.2 Aircraft Inspections

a. Acceptance/Post-depot or Transfer/Pre-depot Inspection.

(1) Type WO codes:

(a) AC - Acceptance/Post-depot Inspection Control.

(b) AF - Acceptance/Post-depot Inspection Fix Phase.

(c) AL - Acceptance/Post-depot Inspection Look Phase.

(d) AX - Acceptance/Post-depot Inspection Single Work Center.

- (e) TC - Transfer/Pre-depot Inspection Control.
- (f) TF - Transfer/Pre-depot Inspection Fix Phase.
- (g) TL - Transfer/Pre-depot Inspection Look Phase.
- (h) TX - Transfer/Pre-depot Inspection Single Work Center.

(2) These conditional inspections are documented using control, look, and fix phase WOs. Maintenance Control will generate a numeric JCN using a WO as a control document and each participating work center will be issued a look phase WO. Upon completion of the inspection, the control document will be completed by Maintenance Control with 1 item processed. Discrepancies discovered are reported to Maintenance Control and assigned JCNs.

b. Major Inspection of Aircraft.

(1) Type WO codes:

- (a) PC - Phase Control.
- (b) PF - Phase Fix Phase.
- (c) PL - Phase Look Phase.
- (d) PX - Phase/PM Inspection Single Work Center.

(2) Aircraft inspections except repetitive inspections, such as daily/turnaround, are documented on WOs using a unique coding system to identify the total effort as a continuous maintenance event. The principal documents involved are control, look, and fix phase WOs as necessary.

NOTE: Phase, special, and hourly aircraft or engine inspections cannot be combined into one Control WO. They must be issued separately to satisfy CM requirements.

(3) WUC. NTCSS Optimized OMA NALCOMIS will auto-assign the WUC upon initiation of the inspection WO. This WUC will be used for both control and look phase WOs related to the inspection. It is constructed as follows:

(a) The first two positions will be 03. The third through seventh positions will be constructed to identify the specific type of inspection(s) being performed.

(b) Position 3. For aircraft under phase maintenance, indicate with the appropriate alpha-character the aircraft inspection phase being performed, as listed in the applicable MRC deck, for example, 03A0000 (Phase Inspection).

(c) Positions 4 – 7 for major aircraft inspections are zeros (0).

(4) Discrepancy. Enter a description of the aircraft inspection due.

(5) Corrective Action. At the completion of the inspection, enter "inspection completed."

(6) Control Document. Maintenance Control issues a separate WO indicating all requirements for each aircraft inspection. These control documents will be held open until the inspection is completed and the aircraft is ready for a FCF (if required).

(7) Aircraft Phase Inspection (Check Crew Not Integrated) Control Document. Documentation procedures will be per paragraph 10.11.2 except; work center code must be 020. (Appendix S)

(8) Look Phase Documents. Look phase man-hours are documented on WOs by work centers participating in the inspection. SCIR is automatically documented on look phase documents for those inspections that the aircraft has been put into a down status due to the inspection. This is done so that accurate AWM can be accounted for by use of the WO job status. SCIR will not be documented on controlling WOs.

(9) Fix Phase Documents. Discrepancies discovered during the look phase of the inspection shall be documented on separate WOs.

c. Special Inspections.

(1) Type WO codes:

(a) SC - Special Inspection Control.

(b) SF - Special Inspection Fix Phase.

(c) SL - Special Inspection Look Phase.

(d) SX - Special Inspection Single Work Center.

(2) These inspections are documented using control, look, and fix phase WOs. SCIR is automatically calculated based on Type WO code and Up/Down status. If an aircraft is downed for a special inspection, SCIR will be documented on the look phase WOs during the down portion of the inspection. Any fix phase discrepancies, discovered as a result of the special inspection, will be SCIR related if they affect the capability of the aircraft.

(3) Aircraft Special Inspection Control Document. Documentation procedures will be per paragraph 10.11.2.

(4) Aircraft Special Inspection Fix Phase. Fix phase actions on special inspections are documented using fix phase WOs. These JCNs are auto assigned by Maintenance Control when approved.

(5) WUC. Special inspections will be documented using an appropriate alpha-character to indicate the level of special inspection being performed. A WUC seventh position matrix is contained in Appendix M. Example:

(a) 7 & 14 Day Special controlling document: 030000A.

(b) 28-Day Special controlling document: 030000B.

(c) 56-Day Special controlling document: 030000E.

d. Conditional Inspections.

(1) Type WO codes:

- (a) CC - Conditional Inspection Control.
- (b) CF - Conditional Inspection Fix Phase.
- (c) CL - Conditional Inspection Look Phase.
- (d) CX - Conditional Inspection Single Work Center.
- (e) OC – One-time Inspection Control.
- (f) OF – One-time Inspection Fix Phase.
- (g) OL – One-time Inspection Look.
- (h) OX – One-time Inspection Single Work Center.

(2) Maintenance Control will issue all conditional inspections. If more than one work center is involved in the inspection, a controlling WO will automatically be issued. These inspections are documented using the special inspection procedures. Document SCIR only if (1) an over-limit condition exists, for example, hard landing, bolter, over-speed, or over-temp, which restricts the aircraft from further flight until the inspection is completed, or (2) higher authority directs a one-time inspection, not ordered in a TD, that restricts the aircraft from flight.

NOTE: Hosting activity TD documentation for transient aircraft will be documented as a one-time inspection.

(3) Aircraft Conditional Inspection Control Document.

(4) Documentation procedures will be per paragraph 10.11.2 except:

- (a) WUC must be 030.

(b) For aircraft undergoing an ASPA inspection, enter WUC 030ASP0 and for aircraft undergoing a PACE inspection, enter WUC 030PAC0.

(5) Aircraft Conditional Inspection Look Phase. Documentation procedures will be per paragraph 10.13.2.

(6) Aircraft Conditional Inspection Fix Phase. Discrepancies are reported to Maintenance Control and assigned a numeric JCN.

e. Preservation.

(1) Type WO codes:

- (a) FC - Preservation Control.
- (b) FF - Preservation Fix Phase.
- (c) FX - Preservation Single Work Center.

(d) SP – Preservation Work Center Action.

(e) BC - Depreservation Control.

(f) BF - Depreservation Fix Phase.

(g) BX - Depreservation Single Work Center.

(h) SD - Depreservation Work Center Action.

(2) Applicable publications used in support of the aircraft preservation process include the NAVAIR 15-01-500 and the daily, special, preservation, conditional, and ASPA MRCs. Not all aircraft have MRCs revised to include preservation requirements. For those aircraft, NAVAIR 15-01-500 procedures will be followed. Volumes I and II also provide additional information on the preservation process. Maintenance Control will issue all preservation, representation and depreservation WOs. If more than one work center is involved in the preservation, representation or depreservation, a controlling WO will automatically be issued. Documentation procedures for all preservation processes are the same.

(3) Maintenance actions in support of the aircraft preservation process fall into four general categories:

(a) Initial Preservation. Initial preservation is applied within the time frames listed in NAVAIR 15-01-500 or the applicable MRCs. It includes requirements that are intended to prevent deterioration of the aircraft while in a non-operating status.

(b) Maintenance While Preserved. Maintenance while preserved includes periodic maintenance requirements that are done after initial preservation is applied. It includes time sensitive requirements that must be done to maintain the initial preservation. Specific intervals are in NAVAIR 15-01-500 or applicable MRCs, and may include intervals such as daily, 7-day, 28-day, 84-day, or 182-day.

(c) Representation. Representation is a complete renewal of the initial preservation and is done when a specified length of time has elapsed from the initial preservation date.

(d) Depreservation. Depreservation is done at the time an aircraft is returned to operating status. It includes removal of protective materials and equipment and servicing of the aircraft systems.

(4) Maintenance Control issues a WO control document and supporting look phase documents to the work centers involved. The same numeric serial number JCN will be assigned to all documents, control and look phase.

(5) Discrepancies discovered during the preservation process look phase will be documented on separate WOs.

f. Daily and Turnaround Inspections.

(1) Type WO code: DF - Daily/Turnaround Discrepancy.

(2) The look phase and required servicing actions are not documented on a WO. Discrepancies requiring work center repair actions will be reported to Maintenance Control.

10.13.3 Aircraft Technical Directive Compliance

a. TD Compliance Procedures (On-Equipment).

(1) Type WO codes:

- (a) TD - Technical Directive.
- (b) AT - Technical Directive Assist.
- (c) ET - Technical Directive (Engine) SCIR.
- (d) QT – TD removal.

(2) The WO is used to document TD compliance. The TD compliance WO is also used by reporting custodians for planning workload and material requirements, and for configuration accounting. Maintenance Control originates the TD compliance WO. If more than one work center is involved, Maintenance Control must initiate a separate TD compliance WO for each work center to document their portion of the TD. TD removals will be documented in the same manner as TD incorporations except for Action Taken and the Material required record. TD Status Code Q will be entered in Action Taken and the material required record would be left blank.

NOTE: OECK bulletins/changes and propeller bulletins/changes are documented in the CM ALS AESR, CM ALS SRC, or CM ALS EHR as identified by the TD. The Assy Cd consists of type/model of the aircraft followed by a 9 in the fourth position, for example, APB9. The BU/SERNO will identify the OECK.

b. TD Compliance Procedures (Off-Equipment).

(1) Type WO code: WR - Work Request.

(2) TDs will frequently require off-equipment work and specify accomplishment at I-level. The activity will use the one-character code that describes the maintenance level actually performed.

(3) If the TD compliance is directly applicable to a component, the removal and replacement of the component will be documented on a WO. The O-level activity will originate a TD compliance work request for the component being forwarded to the IMA. This TD compliance Work Request will accompany the component to the IMA for documenting the accomplishment of the TD compliance action and processing. The CM ALS records will be transferred to the incorporating IMA for documentation of the TD compliance. Once the removal is completed, the maintenance action remains outstanding until the reinstallation has been accomplished. If a component is not ordered, IMA will sign the TD Work Request indicating receipt of the component, and return a copy to the O-level activity as an IOU receipt.

(4) The IMA will complete the remainder of the TD compliance Work Request.

(5) If the IMA informs the O-level activity that the component requires repair, the O-level activity must initiate another WO for turn-in and requisitioning purposes using the original JCN.

c. TD Compliance Aircraft, Engines, Components, and Equipment Turn-In Document (IMA Assist).

(1) Type WO code: TD - Technical Directive.

(2) If a TD is complied with at the O-level (on-equipment work), all maintenance actions will be documented using the WO. If during compliance with a TD it becomes necessary to forward a component to

the IMA for modification or inspection and return, the following procedures will be used. If the TD is applicable to the aircraft, the man-hours required to remove and reinstall the component will be documented on a TD compliance WO. The O-level activity will then originate a TD compliance WO for each component forwarded to the IMA. The IMA will sign the WO, indicating receipt of the component and return a copy to the O-level activity as an IOU receipt. The IMA will complete the remainder of the TD compliance WO as an "assist" work center.

d. Transient TD Compliance (Aircraft, Engines, Components, and Equipment).

(1) Type WO code: HA - Hosting Activity.

(2) Only immediate action type TDs are complied with for transient aircraft. All TD information will be provided in the Corrective Action and provided to the transient organization for CM ALS entries and processing of the TD WO.

10.13.4 Aircraft Engine and Airborne Auxiliary Power Unit Maintenance Documentation

a. General Information. The aircraft is considered to be the end item when work is performed on engines, except for TD compliance at the O-level maintenance activity. Engines sent to IMA for any reason will be considered the end item and the turn-in document will list the engine Assy Cd and the engine PSSN or the module SERNO. When documentation requires an engine or APU to be identified in the Removed or Installed Item, the CAGE will reflect the engine/APU Assy Cd and position number, for example, JHD1. The Part Number will be left blank when Assy Cd are used in the CAGE to identify engines/APUs. Documentation procedures for an aircraft engine or airborne APU are the same with the following exceptions:

(1) CAGE for Material Required. When identifying an APU, enter numeric 1 for engine position; for example, PHA1.

(2) CAGE for Removed or Installed Item. When identifying an APU, enter numeric 1 for engine position; for example, PHA1.

(3) When documenting APU enter the engine hour meter or start counter reading (as applicable) in CM Current Usage Records.

b. Modular Engine TD Compliance.

(1) Type WO code: TD – Technical Directive.

(2) Maintenance Control will generate the TD compliance WO.

(3) If more than one work center is involved, Maintenance Control must initiate a separate TD compliance WO for assist work center to document their portion of the TD.

(4) If the TD has multiple parts, a separate WO must be initiated for each part.

(5) TDs for modular engines will be issued against the module.

(6) The WUC/UNS will be that of the module or component of the module, never the engine.

(7) The Assy Cd will reflect the equipment category and model/series of the engine.

(8) If the TD applies to more than one module, a separate WO with a unique JCN will be issued for each module.

(9) TRCODE 47 will be used for a module regardless of a P/N change or a TD incorporation on a component.

(10) The JCN will be that of the activity requesting the TD incorporation.

(11) When a complete engine is being turned in for TD compliance, the PSSN will be entered in the Discrepancy block.

c. Engine Cannibalization.

(1) Type WO code: CM - Cannibalization Maintenance.

(2) Documentation procedures will be per paragraph 10.11.2.

d. Engine Inspections.

(1) Multi-Type WO codes.

(2) Documentation procedures will be per paragraph 10.11.2.

e. Unscheduled Engine Maintenance.

(1) Type WO code: DM - Discrepancy Maintenance.

(2) Documentation procedures will be per paragraph 10.11.2.

f. Removal and Replacement (solely for AIMD inspection).

(1) Type WO code: WR - Work Request.

(2) Documentation procedures will be per paragraph 10.11.2.

g. Turn-In Document (engine inspection). O-level activities will initiate a new WO to serve as the turn-in document that accompanies the engine to IMA. A printed out WO from the requisitioning activity will be attached and sent with the retrograde.

10.14 Support Equipment Maintenance Documentation

a. SE TD Compliance.

(1) Type WO code: TD - Technical Directive.

(2) Maintenance Control schedules TD compliance actions and initiates TD compliance WOs. The O-level activity will originate TD compliance work request WOs for each end item being sent to the IMA. The TD compliance WO accompanies the end item to the IMA for documentation of the TD compliance and for processing. The IMA will provide a signed copy of the work request WO, indicating receipt of the item and return it to the O-level activity as an IOU receipt.

b. Support Equipment Inspections Periodic Maintenance.

(1) Multi Type WO codes apply.

(2) Inspections (except preoperational and postoperational) and periodic maintenance actions are documented on WOs. The O-level activity will originate a WO for each end item forwarded to the IMA. This WO will accompany the end item to the IMA for documenting the inspections and for processing. The IMA will provide a signed copy of the WO, indicating receipt of the item and return it to the O-level activity as an IOU receipt.

c. Support Equipment End Item Repair.

(1) Type WO code: DM - Discrepancy Maintenance.

(2) The O-level activity originates a work request WO for each end item being sent to the IMA. This WO accompanies the end item to the IMA for documentation of the repair action. The IMA will provide a signed copy of the work request WO indicating receipt of the item and return it to the O-level activity as an IOU receipt.

10.15 Target Maintenance Documentation

a. Target Postlaunch Rehabilitation Inspection (Look Phase).

(1) Type WO code: CL - Conditional Inspection Look Phase.

(2) O-level maintenance personnel conduct postlaunch rehabilitation inspections to determine degradation or damage that may have occurred during a mission.

b. Target Postlaunch Rehabilitation Inspection (Fix Phase).

(1) Type WO code: CF - Conditional Inspection Fix Phase.

(2) Discrepancies discovered during a postlaunch rehabilitation inspection will be documented on the WO. The WUC identifies the failed component/system.

c. Target Configuration Change.

(1) Type WO code: TD - Technical Directive.

(2) When a component must be installed to support a certain mission a target configuration change WO will be completed.

10.16 Work Request

A work request is used by supported Maintenance and Supply activities to request work or assistance from the supporting IMA that is beyond the requesting activity's capability, and does not involve repair of aeronautical material.

(1) Type WO code: WR - Work Request.

(2) The WO work request is used for, but is not limited to, the following:

(a) To request check, test, and service of items removed from an aircraft/equipment/SE for scheduled maintenance when requested work is beyond the capability of the requesting activity.

NOTE: Work requests for items removed for check, test, service, and local manufacture or fabrication must be approved and signed by the requesting activity's Maintenance Control Supervisor and the supporting activity's Production Control Supervisor.

(b) To induct items not part of aircraft or SE, for example, pilot's personal equipment, oxygen masks, life preservers, and parachutes that require check, test, and service. In addition to documenting an IMA WO, documentation will be performed in CM ALS record for task completion.

(c) To induct items from Supply for check, test, and service.

(d) To induct items from Supply for build-up, for example, engines, QECKs, and wheel and tire assemblies.

(e) To induct items not having a WUC or not identifiable to a specific type of equipment for check, test, and service or for local manufacture or fabrication.

(f) To request NDIs, either on-site or at AIMD, as required by supported maintenance activities, when a TD is not involved.

(g) To induct items for RFI certification, prior to installation in aircraft upon the return from SDLM.

10.17 Depot Level Maintenance

a. Standard Rework.

(1) Type WO codes:

(a) IC - PDM or IMC/P Control.

(b) IF - PDM or IMC/P Fix Phase.

(c) IL - PDM or IMC/P Look Phase.

(d) MC - SDLM (MCI/ASPA) Control.

(e) MF - SDLM (MCI/ASPA) Fix Phase.

(f) ML - SDLM (MCI/ASPA) Look Phase.

(g) MX - SDLM (MCI/ASPA) Single Work Center.

(2) Rework performed on aircraft (on-site) by naval aircraft industrial establishments, contractor's plants, and such other industrial organizations designated by COMNAVAIRSYSCOM will be documented using control, look, and fix phase documents.

(3) Communication between the depot and the squadron is crucial since the squadron is responsible for all aircraft readiness status changes for the depot.

(a) Depot activities will notify the reporting custodian upon arrival of the aircraft to be inducted into rework. At that time, the squadron will initiate the rework control document.

(b) When the depot activity is ready to change the status of the aircraft, the depot will notify the squadron, which will complete the control document to terminate the aircraft standard rework status.

(4) WUC assigned to PDM or IMC/P are sequential 030IMC1, 030IMC2, etc. WUC assigned to SDLM (MCI/ASPA) is 030SDLM.

NOTES: 1. I-level personnel will comply with O-level QA, tool control, and documentation requirements.
2. Look phase documents are not issued for D-level.
3. The rework process encompasses the look phase only.

(5) Fix phase documents will be issued for repair of discrepancies discovered during the on-site standard rework process. Off-site repair actions are not recorded.

(a) O-level (level 1) discrepancies will be completed by the squadron.

1) Work Center: To provide accurate man-hour accounting by rate, corrective maintenance actions shall be documented against the host work center whenever practical (110, 120, etc.).

2) EOC codes: C through L and Z (OPNAVINST 5442.4).

NOTE: The aircraft are now being put into an out of reporting status. Therefore, SCIR will not be calculated even though an EOC code is displayed.

(b) I-level (level 2) discrepancies will be completed using the Work Request.

(c) D-level (level 3) discrepancies will be accomplished by a D-level activity using assist work center procedures. If, in the repair process, a repairable is required the repairable will be ordered on the O-level primary WO.

b. In Service Repair.

(1) Type WO code: AD – Assist Maintenance.

(2) ISR is the repair by COMNAVAIRSYSCOM FS activities of aircraft damaged beyond the repair capability of ACCs' maintenance activities.

(3) ISR will be accomplished using assist work center procedures.

c. Modification.

(1) Type WO code: TD – Technical Directive.

(a) Modification is rework performed on new production aircraft and aircraft in the controlling custody of the operating commands. It includes only the incorporation of changes and bulletins and the correction of discrepancies as required in the directive authorizing the work to be performed.

(b) Modification will be accomplished using TD incorporation procedures.

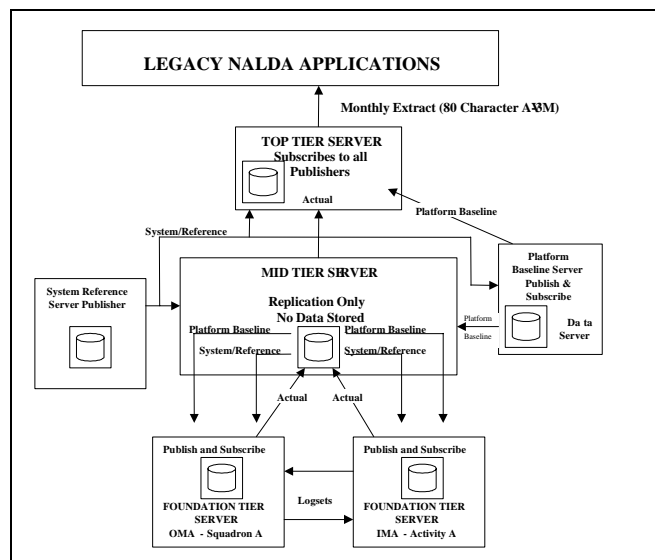


Figure 10-1 NTCSS Optimized OMA NALCOMIS Replication

(35) Pages A-1 through A-15 -APPENDIX A - Acronyms and Abbreviations

ADD:

AADB - Automated Aircraft Discrepancy Book

ADW – Aviation Data Warehouse

AFH - Aircraft Flight Hours

AIRRS - Aircraft Inventory Readiness and Reporting System

AISD- Aviation Information Systems Department

AIS- Aviation Information Systems

ALS - Auto Log-set

ASSY - Assembly

Assy Cd - Assembly Code

BTR - Baseline Trouble Report

CSD – Customer Support Division

EFH - Engine Flight Hours

EOR - Equipment Operating Record

FID - Fault Isolation Detection or Fixed Induction Date

FLE - Fatigue Life Expenditure

FSP - Fixed Service Period

HUMS - Health and Usage Monitoring System

IETM - Interactive Electronic Technical Manual

IMC/P - Integrated Maintenance Concept/Plan

INST - Installed

ISR - In Service Repair

JATDI - Joint Aviation Technical Data Integration

MCI - Material Condition Inspection

MME - Mission Mounted Equipment

MODEX - Side number of aircraft. Leave blank for SE

MU - Memory Unit

[NAVAIRDEPOT - Naval Air Depot \(formerly NADEP/NAVAVNDEPOT\)](#)
[NDCSC - NALCOMIS Data Collection System Center](#)
[NDMS - Naval Air Depot Maintenance Systems](#)
[NTCSS - Naval Tactical Command Support System](#)
[NTR - No Tools Required](#)
[PEDD - Portable Electronic Display Device](#)
[PID - Phased Induction Date](#)
[PMI - Planned Maintenance Interval](#)
[POI - Planned Operational Interval](#)
[REM - Removed](#)
[SMART - Self Monitoring and Reporting Technology](#)
[SMTS - Software Maintenance Tracking System](#)
[SNTP – Standard Navy Training Plan](#)
[SPD – Systems](#)
[STR - Structural Life Limit Component](#)
[TCR - Tracked Component Record](#)
[TRK - Tracked](#)
[UNS - Unscheduled \(maintenance\) or Unified Numbering System](#)
[UNSCH - Unscheduled](#)
[UTIL - Utilization](#)
[VED - Visual Electronic Display](#)
[WAN - Wide Area Network](#)
[WO - Work Order](#)

(36) Page B-1, NOTE 9 (APPENDIX B - Forms and Reports)

REPLACE: “data services facility” with “[NDCSC](#)”.

(37) Page B-5, Table B-2 Reports

a. Prior to “Daily Audit Report Part III”, INSERT:

Aircraft Flight Summary Report	Daily or As required	5	NOTE 3
Aircraft Landing Code and Mission Number (Hours) Summary	Daily or As required	5	NOTE 3
Aircrew Flight	Daily or As required		NOTE 3
Aircrew Flight Summary by Assy Cd	Daily or As required		NOTE 3
Aircrew Flight Summary by SSN	Daily or As required	5	NOTE 3
Individual Master Roster	Daily or As required	5	NOTE 3

b. Following E-00, INSERT:

MAINT-1	Consolidated Performance Metrics	Daily or As required	5	NOTE 3
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<u>MAINT-2</u>	<u>Aircraft Readiness Degradation and Utilization Summary</u>	<u>Daily or As required</u>	<u>5</u>	<u>NOTE 3</u>
<u>MAINT-3</u>	<u>Subsystem Capability Impact Reporting by WUC/UNS</u>	<u>Daily or As required</u>	<u>5</u>	<u>NOTE 3</u>
<u>MAINT-4</u>	<u>Detailed Mission and Maintenance Data by Aircraft</u>	<u>Daily or As required</u>	<u>5</u>	<u>NOTE 3</u>
<u>MAINT-5</u>	<u>Maintenance Manhours</u>	<u>Daily or As required</u>	<u>5</u>	<u>NOTE 3</u>
<u>MAINT-6</u>	<u>Detailed Data Extract</u>	<u>Daily or As required</u>	<u>5</u>	<u>NOTE 3</u>

(38) Pages C-1 through C-58 - APPENDIX C - Definition of Terms

a. ADD:

AUTO LOG-SET (ALS) - ALS records are an integral part of aviation maintenance. They provide a detailed and separate view of the different historical maintenance tasks and usage. In addition, they provide for manual entry of miscellaneous history, repair/rework, and exceedances. It is the administrative means of providing managers with aircraft/equipment age, status, modification, configuration, and historical data to plan, maintain, and operate aircraft and equipment. Properly maintained ALS records are critical to aviation maintenance and safety.

AVIATION INFORMATION SYSTEMS DEPARTMENT (AISD) - The AISD provides AIS support to the MAG. This support includes information systems operations, installation, and maintenance in garrison, shipboard, and forward deployed environments. Other responsibilities include network administration, design, and installation; along with maintaining and repairing data communication links, fiber-optic, and tactical fiber-optic cabling.

BASELINE TROUBLE REPORT (BTR) - BTR provides a means to report NTCSS Optimized NALCOLMIS OMA baseline deficiencies found in a specific PMA baseline.

FIXED INDUCTION DATE (FID) - Fixed IMC/P due dates for maintenance intervals as determined by RCM analysis. For IMC/P aircraft, the fixed date is determined for the start of a PMI and is numbered sequentially within a tour. FID1 marks the start of the tour and is equal to the PED of the previous tour.

FIXED SERVICE PERIOD (FSP) - Fixed IMC/P tour is a cycle which combines all PMIs and POIs completing all scheduled D-level requirements.

FOUNDATION TIER – A publisher and subscriber server located at O- or I-level activities.

INSPECTIONS, AIRCRAFT/ENGINE –

eA. PRE-DEPOT INSPECTION – An inspection performed prior to induction to on-site standard rework. It includes an inventory of all equipment listed in the AIR, verification of CADS and PADS, and a configuration verification.

eB. POST-DEPOT INSPECTION – An inspection performed at the time a reporting custodian receives an aircraft from on-site standard rework. It includes an inventory of all equipment listed in the AIR, verification of CADS and PADS, configuration verification, hydraulic fluid sampling, and a daily inspection.

Activities may elect to increase the depth of inspection if equipment condition, visual, external inspection, or record examination indicates such action is warranted.

INTEGRATED MAINTENANCE CONCEPT/PLAN (IMC/P) – IMC/P replaces ASPA/SDLM and PACE/MCAPP for specific T/M/S aircraft. This scheduled D-level maintenance emphasizes a FID and may segregate the OSP into smaller periods of POI and PMI. Specific T/M/S aircraft transition from initial concept to an approved maintenance plan upon concept validation and approval.

MATERIAL CONDITION INSPECTION (MCI) - MCI replaces ASPA/SDLM for a specific T/M/S aircraft which have been designated by OPNAV N781 as nearing the end of their service life. These aircraft are no longer funded for standard rework. The purpose of MCI is not a PED adjustment, but to ensure airworthiness for an additional operational flying period specified by OPNAV.

MID TIER – Replication server that moves data from the publisher to subscriber (Top Tier).

NALCOMIS Data Collection System Center (NDCSC), formerly Data Service Facility (DSF) - This facility maintains NALCOMIS IMA systems, R-Supply, R-ADMIN, Aviation 3M Micro machine, operation and maintenance of the Mid Tier and JATDI/Technical Manual Server for aviation activities onboard shore stations.

OFF-SITE – Aircraft is located at NAVAIRDEPOT or commercial rework activity's site for rework.

ON-SITE – Aircraft is located at other than NAVAIRDEPOT or commercial rework activity's site.

PHASED DEPOT MAINTENANCE (PDM) – PDM replaces ASPA/SDLM for a specific T/M/S aircraft. PDM divides a larger SDLM specification/work package into smaller, and more frequent, phases for Depot scheduling and completion to decrease periods of aircraft unavailability.

PLANNED MAINTENANCE INTERVAL (PMI) - Period of time for execution of an IMC/P or PDM scheduled maintenance event. Can include O-, I-, and D-level maintenance actions.

PLANNED OPERATIONAL INTERVAL (POI) - Period of time planned for operational use when the aircraft is under IMC/P or PDM. POI follows a PMI and will vary in length based on actual maintenance completion. Predetermined end date is the next FID, or at the end of the tour, the PED.

TOP TIER – The Top Tier Replication server is a subscriber to all.

TRACKED – All life limited/repairable components in NTCSS Optimized OMA NALCOMIS.

WHOLESALE FOUNDATION TIER – Server for items that are BCM'd to the wholesale domain.

b. MODIFY:

INSPECTIONS, AIRCRAFT/ENGINE -

a. ACCEPTANCE INSPECTION -: “* * * a newly assigned aircraft, from any source, including return of an aircraft from an off-site depot facility. It includes * * * ACCUM block. Activities may elect to increase the depth of inspection if equipment condition, * * * such action is warranted. Post-depot inspection requirements may be less stringent than acceptance inspection requirements as determined by the T/M/S Program Manager.

f. SPECIAL INSPECTION -: “* * * daily, phase, major engine, or D-level maintenance. The * * *.”

g. TRANSFER INSPECTION -: “An inspection performed at the time a reporting custodian transfers an aircraft to another operating activity including delivery to an off-site depot facility.” It includes an* * *.”

MAINTENANCE TYPES: **DELETE** 2nd sentence. **REPLACE** “It” in the following sentence with “Rework”.

OPERATING AIRCRAFT -: “* * * in the reporting custody of the operating unit to which assigned. An aircraft that moves to a rework facility for purposes of rework will leave operating status and remain in the reporting custody of the operating unit unless FS status is requested and granted by OPNAV. Operating * * *.”

PERIOD END DATE (PED) -: “The month and year a given aircraft ended or, if serving in period, is expected to end the current service period. For IMC/P, the fixed date (month and year) that marks completion of the last POI in a tour and the start of the first PMI in the next tour (FSP). The IMC/P PED is also the FID1 of the following tour.”

PROCESS: “* * * are included in the term: operating, standard rework, special rework, storage * * *.”

REWORK (RWK): “* * * aircraft SE at NAVAIRDEPOTs, contractor plants, and * * * standard and special. See STANDARD REWORK AND SPECIAL REWORK.”

SERVICE PERIOD: “For aircraft not under IMC/P, a prescribed segment of the service life * * *.”

STANDARD DEPOT LEVEL MAINTENANCE (SDLM) or STANDARD REWORK- A comprehensive D-level inspection * * * module service record items. D-level maintenance processes for SDLM, PDM, IMC/P, and Age Exploration Program, are included in this definition.

UPKEEP: “* * * determined thereby. Upkeep is divided into two categories, scheduled and special. See * * *.”

(39) Page D-7 (APPENDIX -D - Directives and Publications)

a. ADD publication:

OMA-UG

NTCSS Optimized OMA NALCOMIS User Guide (UG)/Online Help

b. MODIFY publication:

OMA-SAM

Legacy NALCOMIS OMA; System Administrator (SA) Manual

or

NTCSS Optimized OMA NALCOMIS; System Administrator (SA) Manual

(40) Page E-2 (APPENDIX E - Action Taken Codes)

MODIFY: N. Work in Progress - Close out (line 2): “* * * or at the end of the reporting period for any reason, including SCIR change WO close out. This code will be* * *.”

(41) Pages I-1 and I-4 (APPENDIX I – Malfunction Description Codes)

a. REPLACE: “NOTE:” with “NOTES:”.

b. INSERT “1” prior to text of existing note.

c. ADD: “2. Malfunction description codes provided by NALCOMIS may not exactly match

definitions from this appendix due to data field limitations.”

d. ADD: “3. NALCOMIS system malfunction code tables may include codes not listed below. All malfunction codes appearing in NALCOMIS drop down menus are authorized for use.”

(42) Page P-2 (APPENDIX P - Transaction Codes

After Transaction Code 19, **INSERT:** “20” in the TRANSACTION CODE column, and “Removal and replacement of nondefective consumable component for cannibalization. (OOMA activities only)” in the “USE” column.

(43) Page S-6 (APPENDIX S – Work Center Codes

a. Under “OTHER” subtitle, REPLACE the function of Code X40: “For Optimize NALCOMIS only. Standard Rework Control (level 3).”

b. ADD X41 through X45 codes and functions.

Code	Function
<u>X41</u>	<u>Standard Rework O-level (level 1) (Note 9)</u>
<u>X42</u>	<u>Standard Rework I-level (level 2)</u>
<u>X43</u>	<u>Assistance Teams – All man-hours expended by special assistance teams, for example, personnel from NAVAIRDEPOTs, factory personel (excluding TECH REPS), are documented to this work center. Also, general work center for assistance teams.(Note 10)</u>
<u>X44</u>	<u>In Service Repair (level 3)</u>
<u>X45</u>	<u>Modification (level 3)</u>

c. Following NOTE 8, ADD NOTES 9 and 10:

9. To provide accurate man-hour accounting by rate, corrective maintenance actions shall be documented against the host work center whenever practical, for example 110, 120, etc.

10. The occurrence of standard rework (on-site) will be documented by Maintenance Control. The control MAF/WO will be issued to X40.

(44) After Appendix T, ADD: NEW APPENDIX U - Type Work Order Codes

APPENDIX U – Type Work Order Codes

Type Work Order to Discrepancy

<u>AC</u>	<u>Acceptance/Post-depot Inspection Control</u>	<u>MF</u>	<u>SDLM Fix Phase</u>
<u>AD</u>	<u>Assist Maintenance</u>	<u>ML</u>	<u>SDLM Look Phase</u>
<u>AF</u>	<u>Acceptance/Post-depot Inspection Fix Phase</u>	<u>MX</u>	<u>SDLM Single Work Center</u>
<u>AL</u>	<u>Acceptance/Post-depot Inspection Look Phase</u>	<u>OC</u>	<u>One Time Inspection Control</u>
<u>AT</u>	<u>Technical Directive Assist</u>	<u>OF</u>	<u>One Time Inspection Fix Phase</u>
<u>AX</u>	<u>Acceptance/Post-depot Inspection Single Work Center</u>	<u>OL</u>	<u>One Time Inspection Look</u>
<u>BC</u>	<u>Depreservation Control</u>	<u>OM</u>	<u>Other Type Maintenance</u>
<u>BF</u>	<u>Depreservation Fix Phase</u>	<u>OX</u>	<u>One Time Inspection Single Work Center</u>
<u>BX</u>	<u>Depreservation Single Work Center</u>	<u>PC</u>	<u>Phase Control</u>
<u>CC</u>	<u>Conditional Inspection Control</u>	<u>PF</u>	<u>Phase Fix Phase</u>

<u>CF</u>	<u>Conditional Inspection Fix Phase</u>	<u>PL</u>	<u>Phase Look Phase</u>
<u>CL</u>	<u>Conditional Inspection Look Phase</u>	<u>PX</u>	<u>Phase/PM Inspection Single Work Center</u>
<u>CM</u>	<u>Cannibalization Maintenance</u>	<u>QT</u>	<u>Technical Directive Deconfigure</u>
<u>CP</u>	<u>Corrosion Prevention</u>	<u>RT</u>	<u>Routine Tasks</u> (Legacy only)
<u>CT</u>	<u>Corrosion Treatment</u>	<u>SC</u>	<u>Special Inspection Control</u>
<u>CX</u>	<u>Conditional Inspection Single Work Center</u>	<u>SD</u>	<u>Depreservation Work Center Action</u>
<u>DF</u>	<u>Daily/Turnaround Discrepancy</u>	<u>SF</u>	<u>Special Inspection Fix Phase</u>
<u>DM</u>	<u>Discrepancy Maintenance</u>	<u>SL</u>	<u>Special Inspection Look Phase</u>
<u>ET</u>	<u>Technical Directive (Engine) SCIR</u>	<u>SP</u>	<u>Preservation Work Center Action</u>
<u>FC</u>	<u>Preservation Control</u>	<u>SX</u>	<u>Special Inspection Single Work Center</u>
<u>FF</u>	<u>Preservation Fix Phase</u>	<u>TC</u>	<u>Transfer/Pre-depot Inspection Control</u>
<u>FO</u>	<u>Facilitate Other Maintenance</u>	<u>TD</u>	<u>Technical Directive</u>
<u>FX</u>	<u>Preservation Single Work Center</u>	<u>TF</u>	<u>Transfer/Pre-depot Inspection Fix Phase</u>
<u>HA</u>	<u>Hosting Activity</u>	<u>TL</u>	<u>Transfer/Pre-depot Inspection Look Phase</u>
<u>IA</u>	<u>Intra-Activity Support</u>	<u>TM</u>	<u>Transient Maintenance</u>
<u>IC</u>	<u>IMC/P Control</u> (OOMA only)	<u>TS</u>	<u>Troubleshooting</u>
<u>IF</u>	<u>IMC/P Fix Phase</u> (OOMA only)	<u>TX</u>	<u>Transfer/Pre-depot Inspection Single Work</u>
<u>IL</u>	<u>IMC/P Look Phase</u> (OOMA only)		<u>Center</u>
<u>MC</u>	<u>SDLM Control</u>	<u>WR</u>	<u>Work Request</u>

Discrepancy to Type Work Order

<u>Acceptance/Post-depot Inspection Control</u>	<u>AC</u>	<u>Phase Control</u>	<u>PC</u>
<u>Acceptance/Post-depot Inspection Fix Phase</u>	<u>AF</u>	<u>Phase Fix Phase</u>	<u>PF</u>
<u>Acceptance/Post-depot Inspection Look Phase</u>	<u>AL</u>	<u>Phase Look Phase</u>	<u>PL</u>
<u>Acceptance/Post-depot Inspection Single Work Center</u>	<u>AX</u>	<u>Phase/PM Inspection Single Work Center</u>	<u>PX</u>
<u>Assist Maintenance</u>	<u>AD</u>	<u>Preservation Control</u>	<u>FC</u>
<u>Cannibalization Maintenance</u>	<u>CM</u>	<u>Preservation Fix Phase</u>	<u>FF</u>
<u>Conditional Inspection Control</u>	<u>CC</u>	<u>Preservation Single Work Center</u>	<u>FX</u>
<u>Conditional Inspection Fix Phase</u>	<u>CF</u>	<u>Preservation Work Center Action</u>	<u>SP</u>
<u>Conditional Inspection Look Phase</u>	<u>CL</u>	<u>Routine Tasks</u> (Legacy)	<u>RT</u>
<u>Conditional Inspection Single Work Center</u>	<u>CX</u>	<u>SDLM Control</u>	<u>MC</u>
<u>Corrosion Prevention</u>	<u>CP</u>	<u>SDLM Fix Phase</u>	<u>MF</u>
<u>Corrosion Treatment</u>	<u>CT</u>	<u>SDLM Look Phase</u>	<u>ML</u>
<u>Daily/Turnaround Discrepancy</u>	<u>DF</u>	<u>SDLM Single Work Center</u>	<u>MX</u>
<u>Depreservation Control</u>	<u>BC</u>	<u>Special Inspection Control</u>	<u>SC</u>
<u>Depreservation Fix Phase</u>	<u>BF</u>	<u>Special Inspection Fix Phase</u>	<u>SF</u>
<u>Depreservation Single Work Center</u>	<u>BX</u>	<u>Special Inspection Look Phase</u>	<u>SL</u>
<u>Depreservation Work Center Action</u>	<u>SD</u>	<u>Special Inspection Single Work Center</u>	<u>SX</u>
<u>Discrepancy Maintenance</u>	<u>DM</u>	<u>Technical Directive</u>	<u>TD</u>
<u>Facilitate Other Maintenance</u>	<u>FO</u>	<u>Technical Directive Assist</u>	<u>AT</u>
<u>Hosting Activity</u>	<u>HA</u>	<u>Technical Directive Deconfigure</u>	<u>QT</u>
<u>IMC/P Control</u> (OOMA only)	<u>IC</u>	<u>Technical Directive (Engine) SCIR</u>	<u>ET</u>
<u>IMC/P Fix Phase</u> (OOMA only)	<u>IF</u>	<u>Transfer/Pre-depot Inspection Control</u>	<u>TC</u>
<u>IMC/P Look Phase</u> (OOMA only)	<u>IL</u>	<u>Transfer/Pre-depot Inspection Fix Phase</u>	<u>TF</u>
<u>Intra-Activity Support</u>	<u>IA</u>	<u>Transfer/Pre-depot Inspection Look Phase</u>	<u>TL</u>
<u>One Time Inspection Control</u>	<u>OC</u>	<u>Transfer/Pre-depot Inspection Single Work Center</u>	<u>TX</u>
<u>One Time Inspection Fix Phase</u>	<u>OF</u>	<u>Transient Maintenance</u>	<u>TM</u>
<u>One Time Inspection Look</u>	<u>OL</u>	<u>Troubleshooting</u>	<u>TS</u>
<u>One Time Inspection Single Work Center</u>	<u>OX</u>	<u>Work Request</u>	<u>WR</u>
<u>Other Type Maintenance</u>	<u>OM</u>		